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The FARM-POULTRY

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No. 7.

The Scratching Shed House.

It is still some time before the building season, but, in our judgment, it is wise to consider building plans beforehand; and as we have many questions about the details of the scratching shed house, asking if this or that variation might not be an improvement, a consideration of some of those questions is timely.

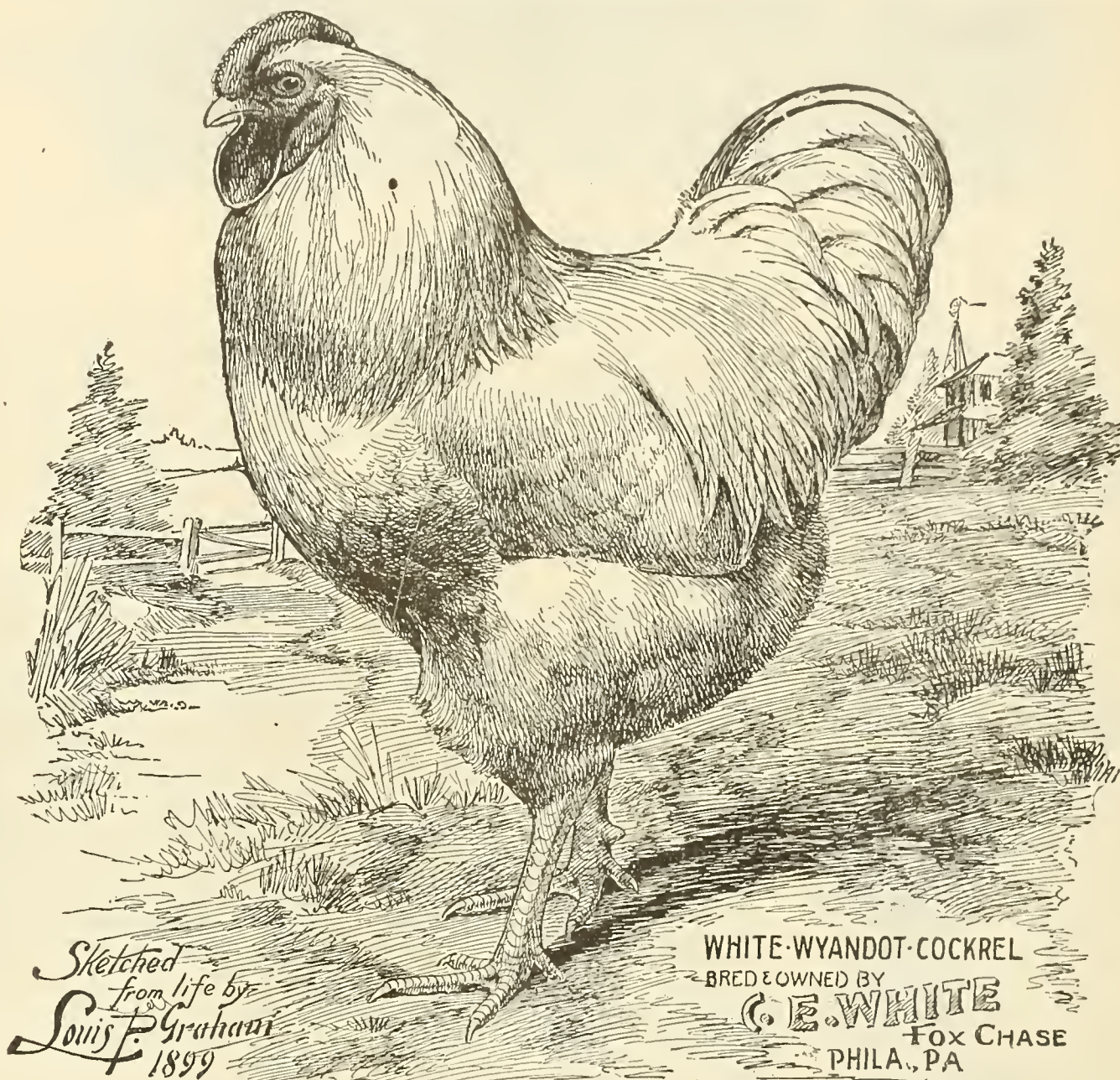
In the article by Mr. Payne, on "A Visit to the Loughlin Poultry Plant," page 120 of the last number, the scratching shed plan of house is discussed by Mr. Payne and Mr. Loughlin somewhat as follows: (Mr. Loughlin had built a poultry house of double width with a five foot central passageway, and pens for fowls on both the north and south sides of the house).

"Asked how he came to build the house in that form, when it was well known that houses of that type had proved failures before, and had to be rebuilt or abandoned, Mr. Loughlin replied that he wanted to economize labor, and his idea was that a double house could be run with something like half the labor of a long range of single houses. Mentioning the scratching shed plan, I was promptly pulled up by being shown the impracticability of such a plan for three thousand hens in one range. There is no getting away from the fact that the ordinary type of scratching shed house, while it is undoubtedly a model of economy and convenience for a small flock, is impracticable for three thousand hens. Just fancy having to pass through two hundred and forty doors with food and eggs. Of course, the back passageway would have to be provided, which means a drafty building, in which the birds cannot be kept free from chills; it is also open to several other objections that have time and again been explained in the columns of F.-P."

We wish to note first, that Mr. Loughlin objected to the scratching shed plan of house because it required more labor, and that he considered the scratching shed plan of house quite impracticable for three thousand hens in one range. Until Mr. Loughlin has demonstrated that his double width plan of house will give better results in profit, as well as healthfulness of stock, we shall continue to preach the scratching shed plan. Of what avail is it to save, say fifty per cent of labor, if thereby we lose a considerable per cent of profit? The labor is but one part; by the way of illustration we will say it is one-third, the food another third, and cost of housing the remaining third. If Mr. Loughlin economizes fifty per cent of the labor, that is but one-sixth of the entire cost of operating a poultry plant. Obviously a small shrinkage of profit will more than outweigh the labor saved.

Mr. Loughlin scouts the practicability of the scratching shed plan for three thousand hens in one range. How many men want to keep three thousand hens in one range,—or one thousand, for that matter? F.-P. has ever had in mind the small poultryman; let us say the average poultryman. In fact, F.-P. is managed in the interests of the average poultryman, and not at all in the interest of the man with three thousand hens; only so far as three thousand hens is thirty times one hundred hens.

It being conceded that the scratching shed plan of house is admirably adapted for the



WHITE-WYANDOT-COCKREL
BRED & OWNED BY
C. E. WHITE
FOX CHASE
PHILA., PA

man of fifty (or one hundred or two hundred hens) we will pass to consider another point.

Mr. Payne says: "Just fancy having to pass through two hundred and forty doors with food and eggs," overlooking the fact that he will have to pass through just as many doors in going to his work; he has to go into each pen to do the feeding, collecting eggs, etc. That passing through doors has been an imaginary bugaboo to many who do not stop to think that there must be doors between the walk and pen, and that, by and large, there will have to be just as much opening and shutting of doors in houses with a walk at the back as in the house as we have planned it, where we go through one pen into another. In fact, year in and year out, there will be more door opening and shutting in the house with the walk at the back, for this reason: The doors between two roosting rooms or gates between two scratching sheds in our scratching shed house plan should be hung with double hinges, so that they will open with a push and close automatically. The door between the scratching shed and roosting room is open day and night nine-tenths of the time, and more. With us it is only closed in the extremest cold weather, and even then it is opened in the morning and remains open until the fowls have gone to roost at night, or, say, until the time of the last visit at night,

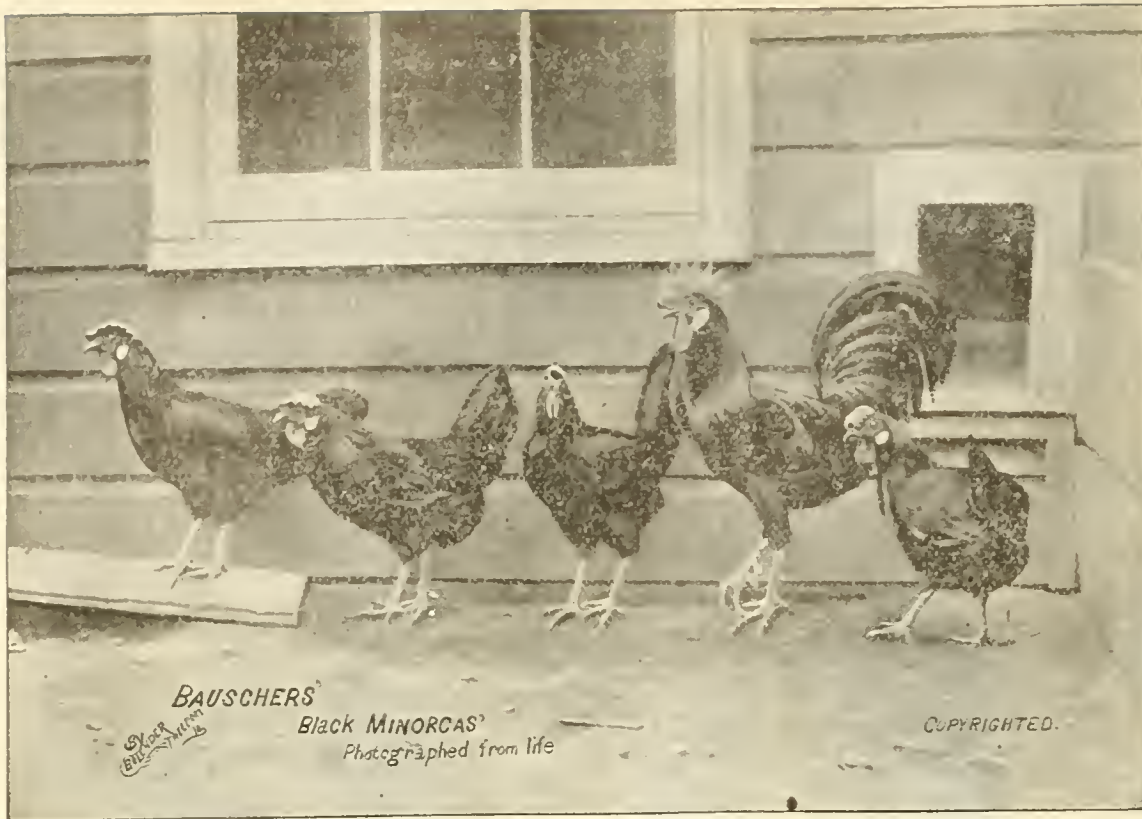
when the roosting pen is closed up snug and warm.

There are undoubted advantages in the walk at the back of the house, but we should never lose sight of the fact that one advantage may be gained at the expense of disadvantages, and in choosing a house plan we ought to consider both advantages and disadvantages, and then decide upon the plan which will give us the greatest number of advantages with the fewest disadvantages.

One great advantage in the scratching shed plan of house, as we have advocated it, is the economy of its construction. Of course Mr. Loughlin does not have to consider economy. Nine hundred and ninety-nine out of every thousand poultrymen do have to consider economy, and in advocating the scratching shed plan of house we are considering the interests of the nine hundred and ninety-nine. The house plan, as we have published it, (it is illustrated and described in June 15, '98 F.-P.), is but ten feet wide, and a single span roof will cover it. The front wall is but seven feet in height, and the back four feet. Any one can see that a building of such height front and back, and ten feet in breadth, can be built for one-half the cost of the house with a walk at the back. The latter must be at least thirteen feet wide, and would preferably be fifteen feet wide, hence must have a double

pitch roof, and both front and back walls six feet, to get head room in the walk. No one in his senses would build such a house with a long pitch roof sloping south, making a low front wall. That would annihilate one of the most important features of the house, namely, the southern front highest to get the greatest amount of sunlight and daylight. That brings up one of the disadvantages of the double pitch roof house. There is a cold air space in that roof, the roof serving to retain the cold air. With the highest wall the south front, the whole interior of the house is warmed and sweetened by the sun's rays, and the air is pure and wholesome; there is no enclosed space to serve as a reservoir for cold unwarmed air.

Mr. Payne considers that the walk at the back means drafty building; his words are: "Of course, the back passageway would have to be provided, which means a drafty building in which the birds cannot be kept free from chills." Thanks, Mr. Payne; that admirably expresses one of the strong objections to the house with a walk at the back, and is a decided compliment to the house with the highest wall south front. With the scratching shed plan of house as we have advocated it, there is no draft, nor reservoir of cold air in the roof space. The birds have the greatest possible freedom from "chills,"



A PEN OF BLACK MINORCAS,

Bred and Owned by John Bauscher, Jr., Freeport, Ill.

and that means a great deal in the healthfulness of fowls in winter. Every intelligent man knows that the healthfulness of fowls in winter is the very corner stone of profit, since it is the winter eggs that pay the creamy profit; and fowls which are unhealthy in winter (say subject to "chills") are in the poorest possible condition to be good breeding stock in the spring. Here we have the whole argument in a nutshell. The scratching shed plan of house, as we have advocated it, promotes the healthfulness of the fowls by keeping the air dry and warm; add to that the most decided economy of it, and we think we may rest our case.

In advocating this simple scratching shed plan of house we have been considering the greatest good of the greatest number. We have studied no end of poultry house plans; we have personally examined thousands of poultry houses in many different parts of this country and in Europe, and we say without hesitation that that simple scratching shed plan as given in June 15, '98, F.-P., is by long odds the best poultry house plan "for the million," combining more advantages with fewer disadvantages than any other poultry house plan of which we have knowledge.

One correspondent in Maryland sends us a sketch of a poultry house with the roosting room at the back, and scratching shed directly in front of it. There are obvious disadvantages to that plan of house, an all-sufficient one being that it would be drafty, and the fowls would be chilled by the cold air in the roosting room. We cannot get too much sunshine into a roosting room in the middle of the day, and by the plan of house sent us by this correspondent there would be very little or no sunshine reach the roosting room. In the F.-P. scratching shed house both the roosting room and shed get a liberal allowance of sunshine.

Another correspondent, this one from Illinois, asks about sloping the roof toward the south, and says: "When they slope toward the south the sun melts the snow from the roof much quicker than where it slopes toward the north, and warms up the building." This correspondent cannot have been a close observer, else she would know that the north roof covered with snow is warmer than the roof with the snow melted off. The cold penetrates the snowless roof much quicker than the roof covered with snow.

Another great objection to the roof sloping south is the drip from the eaves coming down in front of the building, making it damp there; and as the fowls like to congregate just in front of the building, they are frequently wet by the drip from the eaves. Every poultry house should be guttered to carry away the eaves drip; but very few are, however. Another strong objection to the roof sloping

south is that it encloses the cold air above the line of the south eaves, and this gives the house a chill, damp feeling.

A correspondent in Ohio writes at length upon the great disturbance to the hens passing to and fro through the pens. That is no greater than entering the pens from the walk, and just as much entering has to be done to feed, collect eggs, etc., whether you enter from the walk, or pass through from pen to pen.

All these points have been considered in studying poultry house plans. As we said above, there are advantages and disadvantages in every plan, but the advantages, as we look at it, are ten to one in favor of the scratching shed plan as given in June 15, '98, F.-P.

The Star Incubator.

We made a brief visit to the factory of the Star Incubator and Brooder Co., Bound Brook, N. J., a short time ago, and were very much interested in studying the methods of building a first class incubator and brooder. The factory is located at Lincoln, N. J., which may not improperly be called a suburb of Bound Brook, with which it is connected by two lines of steam railway and electric cars. Mr. Rutt, of the incubator company, escorted us out to the factory, and showed us all about—the main floor in which the lumber is cut up and fitted and the cases made; the metal working shop in which the galvanized iron heat distributing chamber is made; the second floor of the large factory in which the incubators and brooders are put together and finished; and thence down to a packing and shipping room in which, at the time of our visit, were stored perhaps two hundred machines ready for shipment. This number is a rather small supply, but more machines were being built to take the place of those shipped away, and the store house full is more a "balance wheel" to take up the surplus, or to draw upon when orders exceed the daily output of the factory.

The Star Incubator is a hot air machine, but has many new and valuable features, the most important of which is perhaps the heat distribution, which is governed by the galvanized iron radiator, especially designed to accomplish this purpose. The heat is of course supplied by a kerosene lamp, the heat from the lamp passing up through the galvanized iron flue to the radiator, which corresponds practically to the hot water tank in hot water machines. This heater or radiator is so connected that the warmed air is conducted through it back and forth three times, and then passes out through the smoke pipes at the top. By this method of circulation practically every particle of heat is utilized; but more important than that, a most even distribution of heat to all parts of the egg chamber is attained, so that the eggs in one part of the chamber have

exactly the same temperature as every other part. The warm air radiating downward through this heater circulates all about and between the eggs, and is drawn out through the bottom of the machine by the lamp draft.

The regulation of the machine is a damper suspended over the top of the lamp flue, and controlled by the thermostatic bar, which, by expansion, lifts the damper and lets the excess of heat escape, so that only the required amount of heat to maintain an even temperature passes into the radiator, the excess escaping through the lamp flue.

An excellent arrangement of the thermostatic bar is placing it in one end of the egg chamber, from which it is separated by a wire partition, so that the chicks or ducks when hatched cannot in any way disturb the heat by disturbing the thermostatic bar. With some machines it would be hazardous to have the radiator in one end of the egg chamber; but so even is the circulation of heat throughout the egg chamber that the company guarantee that their radiator will maintain the heat to a fraction of a degree.

Another excellent feature of the Star incubator is a screw cap attachment on the end of the main flue of the radiator, by removing which the main flue can be cleaned of any soot or dust, just as you would clean a gun, by pushing a bit of cloth, attached to a straight stick, through it. This makes the cleaning of the heater flue extremely simple and easy.

The Star incubators are all double cased, with a dead air space between the cases, and are carefully lined with heavy building and asbestos paper, and the inner cases are packed with mineral wool and heavy hair felting, which insures the incubators holding their temperature in any climate; and the company make it their boast that they have no water tank to freeze in cold weather, no lamp trip or other complicated mechanism to get out of order, and that their machine is as simple and easy to operate as it is possible to devise.

The Star Incubator Company make six different sizes of machines, ranging from 110-eggs to 390-eggs,—in addition to which they have a 40-egg size, which they call their "Bantam" incubator, and make a special compartment incubator for keeping two or three kinds of eggs separate from each other. They also manufacture four different patterns of brooders, both hot water and hot air; and a three section indoor brooder, with a lighted brooder chamber, which looks a very attractive sectional brooder arrangement. Their catalogue, sent free on request, fully describes these different machines.

It Is Practical.

I am a new subscriber to your paper, and appreciate it greatly. It is more practical than anything in the west.

BRICE HAMMERS.

Clearwater, Ks., March 4th, 1899.

Prof. Robertson, Canadian Agricultural Commissioner in Prince Edward Island.

The Professor Talks on the Fattening of Chickens for the English Market, and Means to Establish Several Chicken Fattening Stations in the Province.

One of Professor Robertson's most important subjects at the meetings he is holding in Prince Edward Island, is the growing and fattening of chickens for the British markets. He means to have several chicken fattening establishments working in the island, with concomitant cold storage in August next. Professor Robertson paid an extended visit to France and to certain districts of England where this chicken fattening industry largely obtains, and the outcome of this visit is the starting of the industry in Canada on an extended scale. In dealing with this subject, the professor said: "The hen was so small that many could scarcely see it on the farm. A great many men cannot see an animal smaller than a horse, much less the insignificant little animal known as the hen. Still the hen was capable of becoming one of the most productive industries in connection with agriculture."

He then minutely described the method of fattening chickens practiced by large poultry raisers in the south of England, and the remunerative results he himself obtained by adopting and practicing similar methods at Ottawa. He pointed out the difference between chickens which were not fattened by this process and those that were. By the process, one chicken fattened weighed as much as three not fattened. Chickens gained 2 lb. 9 oz. a week by fattening process. Original cost of feed and cost of carriage amounted to \$1.06 a pair. They were sent to Liverpool, and sold like hot cakes at wholesale at \$1.76 net. The report of the commission man was that the chickens were in excellent condition, and merchants there could handle all that could be raised, if fattened and shipped in the proper condition. "In Prince Edward Island," said the professor, "farmers find pleasure and profit in the poultry business. Farmers here can grow twice as many oats, make the pigs pay, and make big profits out of fattening chickens. These three, if taken up, would dwarf the dairy business, big and important though it was." He minutely describes the fattening and cramming process. In the last three weeks of the period tallow to the amount of one pound to seventy fowl is mixed in the ground feed and skim milk. In one case he bought a number of chickens in the open market at thirty-five cents a pair, fattened them by this process, and sold at a profit of seventy cents. This is certainly a new industry, and a money making one, and offers a grand opening to the farmers of the maritime Provinces and anywhere else, to make quick and ready money by chickens. The production of eggs alone dwarfs beside the new business of chicken fattening, and the possibilities of one hundred hens, by working them for eggs only in fall and early winter, and for hatching remainder of the year, and fattening the chickens by this process, are infinite.

J. A. MACDONALD.

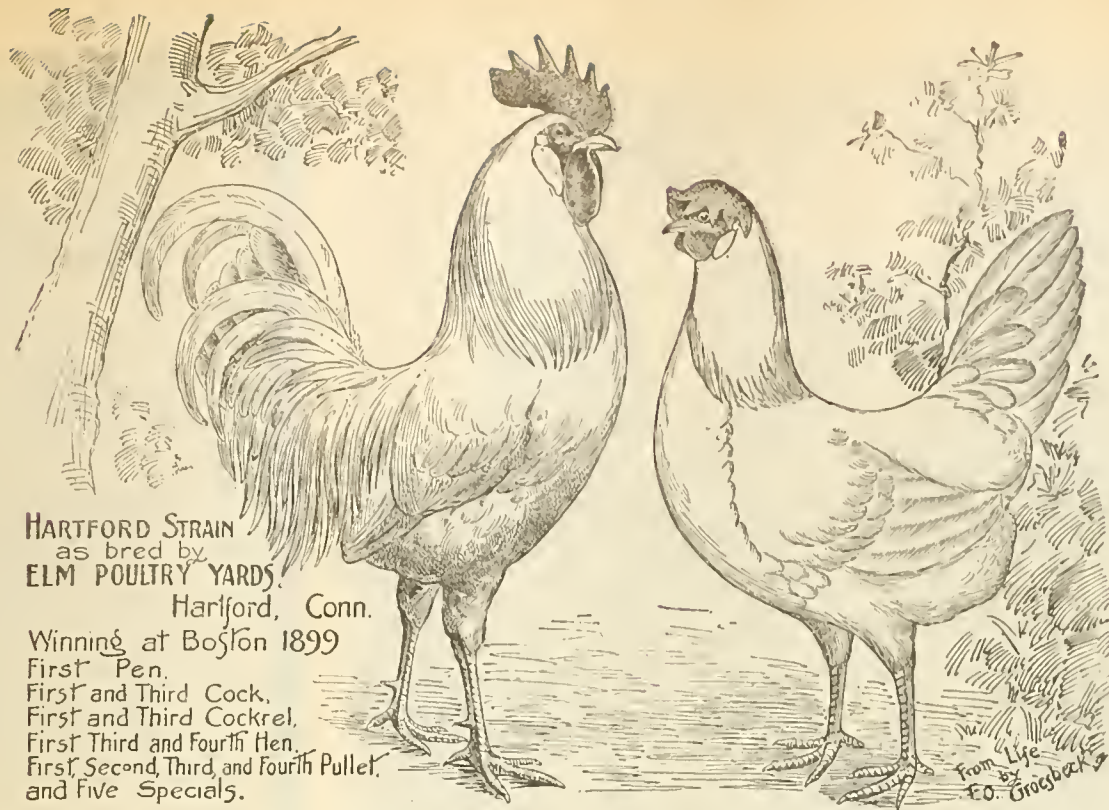
Hermanville Farm, P. E. I.

Food Value of an Egg.

Six large eggs will weigh about one pound. As a flesh producer, one pound of eggs is equal to one pound of beef. About one-third of the weight of an egg is solid nutriment, which is more than can be said of meat. There are no bones and tough pieces that have to be laid aside. Practically an egg is animal food, and yet there is none of the disagreeable work of the butcher necessary to obtain it. Eggs at average prices are among the cheapest and most nutritious articles of diet. Like milk, an egg is complete food in itself, containing everything that is necessary for the development of a perfect animal. It is also easily digested, if not damaged in cooking.—*Presbyterian Banner*.

Massachusetts, Too.

What Maine wants is two million hens and pullets to come into laying before November, 1899. Thus by preparing for winter the dollars will flow in to help out expenses next winter. Don't forget the hens when planning for more revenue next year.—*Maine Farmer*.



HARTFORD STRAIN
as bred by
ELM POULTRY YARDS,
Hartford, Conn.
Winning at Boston 1899
First Pen,
First and Third Cock,
First and Third Cockrel,
First Third and Fourth Hen,
First, Second, Third, and Fourth Pullet,
and five Specials.

Grit.

We were talking with a very well informed writer on poultry topics the other day, when he overwhelmed us with the following wondrous theory: "When a fowl is fed on hard grain it does not need grit, but the grit becomes a necessity when soft food is fed." Now isn't that a glorious theory? It certainly comes in touch with part of Webster's definition of the word theory: "A scheme of things which terminates in speculation or contemplation without a view to practice,—implying something visionary." Why not say that if man is to eat only solid food he needs no teeth, but if he is to live on liquids he must have teeth? Is this not quite as reasonable?

What part does grit play in the digestive organs of the fowl? Open a few fowls while food is being digested, and see for yourself. There is the gizzard with its tough inner lining and its outworks of strong, tough and thick muscle; this muscle is so disposed that there can be no mistaking its purpose. The gizzard is a mill, a grinding machine—and what does it grind with? The walls are roughened, to be sure, but these corrugations of tough membrane are not sufficient in themselves to cut and grind whole grain, even if it has been somewhat softened by the digestive fluids. The grain will not cut grain, and surely will not render green stuffs fine enough to become soluble in the digestive fluids of the intestines beyond the gizzard. The grinding must be done by good hard sharp stone,—grit—and nature has taught the fowl to supply itself with mill stones for this powerful little mill to grind its grist with. When this mill first was invented and pressed into service, it is not probable that the owners thereof had many messes of soft food.

The soft foods we now give our poultry are for the most part made of finely ground stuffs, and are partially digested by cooking, and the fluid used in mixing. The gizzard can hardly bring any amount of grinding to bear on such food; but more probably devotes itself to mixing it with the other foods and passing it along to the several feet of digestive apparatus which the food must pass through before the waste is voided.

That grit is absolutely essential to the proper digestion of hard grains, is easily proved. Shut a fowl up where she cannot possibly get any grit, feed her on nothing but hard grain, and in a short period (depending on how well she was supplied when imprisoned, and on the vigor of the bird) you will find that she will show a distaste for her food, and later she will develop a pronounced case of indigestion. A fowl so penned and fed on soft food will hold out longer, and may not show any ill effects until she succumbs to overfatness. Or, when your fowls are cooped for winter, and the pens are fairly free of gravel or any kind of grit, feed them almost wholly on hard grain, and supply no grit—then when you note a let up in the appetites go out and fill up the grit and shell box. Until you have tried it you cannot appreciate

grit, or how much a fowl is capable of holding of it. You will note a picking up in the appetite immediately following the filling of the grit box.

The prime importance of grit is its grinding and cutting power; but grits containing some percentage of lime and iron probably part with a portion of their constituents to the food carriers of the body, though the bulk of the worn-grit proves insoluble, and is voided.

Your poultry needs grit from the shell to the chopping block. There is no period in a fowl's life when it can do well without grit of some sort. It should be mixed with the first food a chick gets, and thereafter should be always accessible. It is essential that the grit be fairly hard, but should not be so hard that it will wear smooth. The grit that does not wear smooth (as glass and marble will) but always presents a rough cutting surface, is the best. Most of the manufactured grits are good, and they are cheaper and better than the home made product, when time and labor are considered. Oyster shell is a valuable and necessary adjunct to grit; you need both.

If you are in doubt which grit is the best, and which you should buy, get some samples of several kinds, and feed them to different flocks, and watch the droppings; the grit which appears least frequently in the droppings is the best. If you leave it to the judgment of the fowl, she will probably select the whitest or most sparkling, which is not always the best. Never accept smooth or "soft" grit at any price. Dr. Woods.

Using Insect Powder.

More chickens are killed through the ravages of vermin than through all the diseases put together. The birds are so weakened by these pests that they are very susceptible to many ailments, and where chickens have been practically killed by lice in some cases the gall duct of the liver is found very full. When chickens have many vermin upon them, their feathers look a little rough, eyes pale and sunken, there is a line underneath the eye which gives the bird a peculiar appearance, as if the beak were too long for the head (crow head) and the wings too long for the body. Even when the chicks appear strong and healthy, it is well to catch one or two occasionally and examine them very closely, and if there are the least signs they should be well dusted with insect powder. Those that have a large number of vermin upon them should be dusted with insect powder twice, the second time from five to seven days after the first dressing, also at the same time applying a few drops of sweet oil on the heads.

When dusting the chickens place a large sheet of paper on a table, and lay the bird on its back; then part the feathers and shake the powder well in, so that the whole of the skin is covered with it. Turn the bird over, and rub the preparation well into the ends of the flights among the quills. After they have been well dusted with the powder it should be knocked off the surface of the feathers with the hand, onto the paper, so that none is wasted.—Osteo Farmer.

The Perches.

If there is anything about the furniture of the poultry house that needs careful attention, it is the perches, or roosts. On these the hens spend over half of their time, and it is quite necessary that they be hygienic in every way.

So many poultrymen have such high roosts that the fowl, in jumping down, bruise their feet, and the disease known as bumble foot results. Others place their roost poles in a stair form.

This causes all the fowl to crowd to the top roost, and, of course, the weaker ones get crowded off, and some are crippled or killed.

To avoid this difficulty, place the roosts on a level, and only sixteen or eighteen inches high, then when the fowl alight from the roosts there will be no danger of injury to them.

The reason fowl like high roosts is that in their wild state they learned to roost as high as possible, so as to avoid their enemies. I would rather see roosts only eight inches above the floor than to see them four or five feet above.

The kind of roost pole is quite important. It should be free of any creases or cracks wherein lice may find a lodging place. This is quite important.

They should not be smaller than two or three inches in width or diameter. A two by four, made round on one edge and placed on edge, makes a very good roost pole.

The poles should be placed so as to be movable that they may be taken out and cleaned once in a while. The handiest way is to mark a low trestle, and let the roosts set in notches cut in them.

Make them solid, but do not nail fast.

Now give the whole thing a good coat of coal tar or of whitewash, and you will have a roost that no sanitarium crank will ever find fault with, and one that you will find quite beneficial in every way.—Exchange.

Work for Eggs.

Don't expect to get remarkable egg yields without working for them. The professional poultryman who gets three times as many eggs a year as does your farmer neighbor, is reaping the benefit of knowing how. That is, he breeds for eggs, "beginning with the grandmothers"—and he not only breeds for eggs, but he hatches for eggs, and he feeds for eggs until, like the farmer who makes two blades of grass to grow where one grew before, the egg man makes his hen to lay two eggs where the other fellow's lays but one—or maybe none at all.—ANNIE L. ROGERS, in *New England Farmer*.

WE WON

Twelve 1st and eight 2d premiums on R. I. Reds, geese, dressed poultry and eggs at

LAST BOSTON SHOW.

SAMUEL CUSHMAN'S illustrated and descriptive circular of geese and R. I. Reds free.

EGGS for HATCHING.

Barred Plymouth Rocks,

(Brown Egg Strain; "the business fowl of the 19th century").

White Wyandottes,

(Brown Egg, Profile Laying Stock).

Price, \$2 per sitting; three sittings, \$5.

For eggs from the same pens I set eggs from for my own chickens. My breeding birds were bred from profile layers, and laid over 3700 eggs in December, and over 1800 eggs in January last.

Incubator Eggs, \$6 per 100.

A few good breeding cockerels at \$3, \$1, and \$5 each.

A. F. HUNTER,

South Natick, Mass.

Black Langshan

EGGS
You last opportunity to get eggs from my stock at these prices:
\$1 per set of 15 from 4 pens.
\$2 " " " " 1 pen.
Trios \$5; cockerels \$2 and \$3.
JAMES H. LORD,
Lawrence, Mass.
Box 26.

HEILBORN'S

Mammoth Light Brahmas

Win at the various shows throughout the east in the strongest competition. They made a clean sweep at Milton and Fall River. A fine young lot of chicks for sale at reasonable prices.

Address ARNOLD HEILBORN,
Box 56, Warwick, R. I.

"210 EGG STRAIN"

—OR—

White Wyandottes.

Bred for utility. Pullets of this strain mature when five months old, are of standard weight, and have averaged 210 brown eggs per year.

Eggs for hatching, \$2 per sitting; 3 sittings \$5.

Formerly at Natick. F. E. WOODS,
Mansfield, Mass.

Remington's Langshans.



See their whopings at the Boston show:—Cock, H. C.; cockerel, 1st and V. H. C.; pullets, 1st, V. H. C. and H. C.; breeding yard, 1st; special for best cockerel and 4 pullets; special for best breeding yard, and special for best display.

Excellent young stock for sale. Eggs, \$3 per 13; \$5 per 26.

J. S. REMINGTON,
Box 136, Greenville, R. I.

RAYMOND'S

WHITE Wyandottes SILVER BUFF GOLDEN.

Are great layers as well as PRIZE WINNERS, and have clean yellow legs and correct plumage. EGGS 11 set will hatch \$2 per 15; \$4 per 50; incubator eggs \$6 per 100.

WILL H. RAYMOND,
Box 685, Central Falls, R. I.

LANGSHANS

That win in any kind of company.

BOSTON '99.

1st hen, 2d pullet, 3d pen. Eggs \$2 per 15; \$3.50 per 20; \$5 per 45. From pens which include all our winners.

PLEASANT VALLEY POULTRY FARM.
Address BATTY BROS., Methuen.
Box 106 Lawrence, Mass.

B.P. ROCKS

and

W. WYANDOTTES

For vigor and brown eggs \$1 per 15, straight; incubator eggs \$6 per 100. No better practical stock at any price.

JUST OUT,

MARCH 15th,



New illustrated catalogue of Incubator and Brooder Supplies. Sent free if you mention this paper.

All about Thermostats, Regulators, Safety Lamps, Traps, Bolders, Hot Air Heaters, etc.

Address

L. R. OAKES,

Bloomington,

Ind.



BARRED PLYMOUTH ROCKS.

Bred and Owned by D. J. Lambert, Apponaug, R. I.

Feeding For Eggs.

It seems strange that in this enlightened age, when there is so much literature concerning poultry, how to feed, how to care for, and how to manage hens in general, that people should confess that they cannot make hens lay. I have known many cases during the past winter where eggs were as scarce as hens' teeth. I can well understand why the average farmer cannot get eggs. His great trouble has been and always will be lack of care, and the uncertainty of the age of his fowls; but, on the other hand, why a first class poultry plant, modern and up to date, with good stock on it, cannot report a sufficient supply of eggs all winter, is beyond me.

Making hens lay should be the easiest problem to solve. I do not mean to say that they can be made to lay always by November 1st, but surely they should be doing well by the last of November, and continue all winter.

There are few points which are absolutely necessary to be considered in this regard. First of all, fowls must not be of uncertain age. The modern egg farmer knows to a certainty the exact age of all his hens. Pullets, of course, are our earliest layers, or rather should be, if hatched in early season.

Next our yearling hens should be made to moult early, so as to follow close behind the pullets; and last, our two year olds should come third. Keeping hens longer than this, I consider a mistake. Pullets and yearling hens are what we must depend upon for our regular egg supply, and we frequently get our strongest setting eggs from the two year olds. The first consideration of general care for layers is perfect health. Unless we can maintain a flock in this condition, our egg supply will be an unknown quantity.

I believe that the great majority of breeders overfeed their layers, especially during the cold months when they are closely housed. Overfeeding breeds disease and fat, both of which will check egg production. A flock of layers must be kept active. This is easily accomplished by feeding short, or giving them not all they can eat up during the day. A half portion for breakfast induces exercise; a full portion, or, in other words, all they can eat, induces laziness. Hens that leave off hungry will scratch in litter, and hunt for more, and the more they exercise the better the chances are for eggs. This is very simple to my mind, and yet it has been preached hundreds of times in the *Country*

Gentleman, and goes unheeded. Hens confined in winter should be supplied with all the variety of food they crave if let run in summer. This means grain, green food, and meal; of the three, green food is as important as the other two. Note what your hens do when first let out in the early spring. They ravenously devour the young green grass. This should be a lesson for the winter confinement. Feed plenty of green food. This may consist of raw cabbage, turnips, mauls, apples, carrots, or any other vegetable. Feed plenty of meat, but in small quantities at a time. Too much meat is fattening, just as too much of any other kind of food. Feed plenty of grain, but compel exercise to find it.

I feed a mash every morning in the week, and continue it until I find my hens are getting tired of it; then I change to a grain feed for variety. The mash consists of one part bran, one part ground corn and oats, one part corn meal. This is all mixed together with hot water at night, covered up, and left to steam until morning, when it is fed warm. I change the ingredients occasionally, leaving out one and adding middlings or mashed up vegetables. I never give my hens all they will eat of this mash—only enough to satisfy the cravings of hunger. Cracked corn (because it is small and hard to find), wheat and oats, mixed together, are scattered in the litter, and the hens are compelled to scratch to find it. At noon I feed cabbage every day. At night I feed a scratch feed of whole corn, wheat and oats, and all they can possibly eat; if the weather is very cold, more corn than oats; if the weather is extremely cold, frequently all corn. Surely there is nothing very difficult or mysterious about this mode of feeding, and I get eggs all winter.

My flock is supplied with fresh water once every day, and never until about nine or ten o'clock. I consider this the best hour, because the hens are then warmed up and ready to drink. Giving fowls water at seven o'clock in the winter mornings, is like giving a man ice water after he has passed a not too warm night. It chills his whole system, and it requires all the blood in his body to take off the chill. It has the same effect upon fowls, and when they are thus chilled they will not lay until they are warmed up. Shell boxes are kept constantly filled. Coops and roosts are kept free from lice. My roosts and drop boards are cleaned every day in the year. Litter in coops is never allowed to become foul or damp. Dust boxes are always filled with dry sand. All this

requires but little labor if done systematically; if neglected, it becomes hardship.

Some breeds lay better than others, but all breeds will lay eggs if their natures are studied. The breed does not matter so much; it is the care. Plymouth Rocks, Wyandottes, Brahmas, Minorcas, Leghorns, Langshans, Cochins, Dorkings, and Houdans are all good layers. I can personally get more eggs out of Barred Plymouth Rocks and White Leghorns than any other breeds. It is simply because I have studied their natures, and bred them as layers for years. Anyone else can take his favorite breed and do as well, if he knows its nature. For example, Brahmas require entirely different care and feeding from Leghorns. One is a heavy, lazy feeder, and the other is a quick, active, wideawake egg machine. It would be the height of folly to treat them alike, and the result would be far from satisfactory.

In general, fowls should be kept in dry houses. During the winter months, when buildings are closed up tight to keep out the cold, a certain amount of dampness accumulates; and I have seen houses where the walls and ceilings were dripping with moisture. Such an atmosphere will cause roup almost at once, and throw the whole flock out of condition, and end in a great mortality. The remedy for this is, above all things, fresh air. Windows should be opened wide a longer or shorter time during the day, depending upon outside temperature; but it can never be too cold to give your fowls some fresh air. Fresh air will dispel the moisture and will dry out the houses.

These few points, which I have endeavored to treat simply, if followed, will bring the desired result, which is eggs.—E. O. ROESSE, in *Country Gentleman*.

NO DOUBLE MATING SYSTEM

Is required to breed RHODE ISLAND REDS. It does not take an expert, acrobat in breeding to do it and get around an unnatural standard. They almost come so, and stay so, and hold their beauty by the simplest of breeding. A very important reason why they are such favorites on the farm. SAMUEL CUSHMAN'S illustrated descriptive circular free.

Bailey's BROWN LEGHORNS.

Noted layers, prize winners, and non-sitters.

J. A. BAILEY,
No. 738 14th St., Denver, Colo.

Hens lay eggs

when fed with the things eggs are made of. Eggs are principally albumen, produced by the hens from the protein they absorb from their food.

Bowker's Animal Meal gives the hen more protein and other egg-making material than any other similar food. Always sold in yellow bags and yellow packages.

For sale by dealers and by the manufacturers. Large package 25 cts. Pamphlet free.

The BOWKER Company

43 Chatham St., Boston.

PLAINVILLE FARM

RHODE ISLAND REDS.

Having mated my best stock of the following breeds: Rhode Island Reds, single or double comb, Barred Plymouth Rocks, Felch strain; White Plymouth Rocks, Hawkins strain; White Wyandottes, Dunston strain; Gold and Silver Wyandottes, Hawkins and Jodrey strain. Eggs \$1 per 13; incubator eggs, \$3.50 per hundred. Have a fine lot of White Wyandotte cockerels at \$2 each.

HENRY A. HOLCOMB, New Bedford, Mass.

Suits Everybody.



We guarantee the Star Incubator to be perfectly satisfactory to every purchaser or return your money without question. No other incubator company gives such a guarantee. They want their incubators to stay sold—we don't, unless the buyer is satisfied that they are the best on earth and satisfactory in every way.

NO MOISTURE to be supplied. Catalogue free.

STAR INCUBATOR & BROODER COMPANY,
Bound Brook, New Jersey.

AT THE

GREAT BOSTON SHOW

THE EXPERT'S

Single Comb

Standard R. I. Red Cock'!

WAS AWARDED

SECOND PRIZE.

(No first prize being given to this class.)

Book your order for eggs, and send for a copy of our Standard

FRED B. COCHRAN,

E. Somerville, Mass.

Expert poultryman. Member R.I. Red Club.

BRED TO LAY

W. WYANDOTTES, B. PLYMOUTH ROCKS.

Carefully bred from dams of standard weight, whose egg laying record for each succeeding generation was individually known to have increased from year to year. Males are all from 200-egg hens, \$1.50 per sitting of 15.

BR. CAULT POULTRY FARM,
P. O. Box 68, Lawrence, Mass.



BARRED PLYMOUTH ROCK COCKEREL.

Bred and Owned by F. E. Colby,
Bow Mills, N. H.

Protection from Hawks.

A correspondent in Virginia asks about protection from hawks:—

"The hawks are very bad around here. Out of one hundred and seventy-five chickens put out very early last spring they ate about one hundred, so I am thinking of using one inch mesh wire netting, about two feet high, and make pens 6 x 15 feet, cover over with six feet wide wire, two inch mesh, and put the coop inside. Do you think it will be practicable?"

We would think it an excellent plan, and give an illustration and description of a cat proof (also hawk proof) chicken yard which we published in August 1, 1895, F.-P.

A Cat-Proof Chicken Yard.

Written for FARM-POULTRY.

I live in a village. The house lot contains thirty-two rods of land, a good sized dwelling house, a hen house 8 x 12 feet, and two chicken yards six feet two inches long by four feet four inches wide. Cats and rats may roam the yard at their own sweet wills day or night, dogs ditto, and if a hawk ventures into the neighborhood (which sometimes happens) my chickens are perfectly safe.

When I decided to keep poultry I set my wits to work upon a yard that would keep the chickens safe from cats, knowing that a neighbor lost nearly every chick he hatched by the prowling felines. I have never lost a chicken yet from having it caught by a cat or rat. I ordered from a carpenter about ninety feet of planed pine boards, three inches wide and one inch thick; bought twenty-one feet in length of 18-inch wide chicken wire netting, one inch mesh; eight hooks and screw eyes, wire nails

of various sizes, and four feet six inches of six-foot wide wire netting, two-inch mesh. I cut the boards into six pieces 6 feet 2 inches; six pieces 4 feet 4 inches; nine pieces 1 foot 9 inches. For the side and ends, nail the short pieces one inch within the ends. Nail the extra short piece to one of the end pieces about seven inches from the end, and another piece across the space, about middle way, to form a door to the coop. The other four pieces nail the corners even. Cover the sides with the 18-inch netting, and the top with the four feet wide netting. Screw a hook at top and bottom of both ends of the end pieces on the inside.

When hooked together the pieces form four sides of a square, and the top being laid on, makes a box. It can be easily moved from place to place while in use, and when not needed may be packed into a small space, and is out of the way. It has one more advantage,—a woman can make it without any help—for I did it all myself. For shade I lay a piece of Neponset roofing on top at one end, with a couple of strips of board to weight it down if the wind blows. I think the materials cost just a dollar.

The coop stands just at the corner of the pen, and has a door corresponding to the door in the end section, and it may be an "A" coop, a box coop, or any other form that suits the taste and purse of the builder.

Several have spoken of the convenience of my pens, and the absolute security they give from cats, etc. They are convenient, not only that they can be packed away into a small space, but they can be moved sideways to fresh ground every few days, insuring the chicks a clean grass run. For village lots, where chicks have to be confined to prevent their scratching the garden, or to protect them from cats, rats, etc., they are of great value.

Westboro, Mass. Miss E. J. H.

The Future of the Utility White Wyandotte.

Written for FARM-POULTRY.

It has now become a matter of ancient history how the White Wyandotte breeders who petitioned the revision committee of the A. P. A., and later the A. P. A. itself, for certain changes in the Standard, were turned down. Perhaps the "why and wherefore" is not known to all FARM-POULTRY readers, and probably no better explanation can be given than that contained in editor Curtis' notes from the Boston show, in Feb., '98, *R. P. J.*: "The New England Club presented a standard, the important change in which was that in the undercolor of White Rocks, 'white or creamy white' be allowable, the surface to be pure white; but by this time (the room in which the meeting was held being cold) a majority of the members present had gotten in the mood of hurrying things, so the N. E. Club was ignored, and the Standard, as reported by the committee on revision, was adopted. It provides for 'plumage white throughout,' hence any black disqualifies, as in the past, and straw color and creamy white

are to be punished. The first is right, the latter wrong."

This decision in regard to White Rocks also settled the same question as to color of White Wyandottes. No explanation can be given for this fit of candor on Bro. Curtis' part, except that having been for a week or more under the benign and elevating influence of Dame Boston, he went home, and before the influence had time to wear off came out on what he knew to be the right side, and told the truth.

This last, according to some high authorities, is a mighty bad habit for a "dyed in the wool" fancier to get into, but C. righted himself so nobly with the "fancy" in the next paper that he need have no fear of losing caste. In March, '98, *R. P. J.*, he says:

"The White Wyandottes at Boston, taken as a class, were the best we have seen, though there were quite a good many medium poor birds in the lot. Our 'utilitee' friends could find all of the yellow legs they wanted under these snow white birds, legs rich in color and stout in bone. We challenge any so-called 'utilitee' breeder on earth or elsewhere, to place in competition at the next Boston show birds that will excel in size, type, color of legs, and weight of bone, those exhibited by breeders who are proud to claim that they breed to standard requirements. They can paint them all over with yellow if they want to, and we will still put up better Wyandottes to look at, that will also be in every way as good to eat and to lay eggs as their dandelions."

As no one else saw these wonderful "snow white birds with legs rich in color," we conclude this was a sort of peace offering to those fanciers who might be offended by the article quoted from in the February *R. P. J.*

Bro. Curtis likes his little joke, but I hardly think even he would like to be put on record as saying that all utility Wyandottes are brassy, or as he puts it, "dandelions;" but it is nevertheless a fact that the average fancier will always try to work this old chestnut on any and all occasions. Some of the brassiest birds I have ever seen have been raised from the stock of some of our most noted winners in the show room, so that I am convinced that the food a bird receives, combined with exposure to sun and all sorts of weather, will produce the undesirable brassiness, no matter what the strain. There is as great difference between the White Wyandotte with just a creamy tinge to the plumage, and a brassy bird, as there is between a rose with a delicate creamy tint and Curtis' dandelion. Who shall say but the tinted rose is not equally as beautiful as the pure white?

It is repeatedly asserted by the "fancy" that utility breeders, the ladies of course included, are a sordid, calculating set of individuals, whose interest in their stock begins and ends with the number of dollars they can get out of it; that all conception of what constitutes the "truly beautiful" is confined to the "fancier" alone. This reminds me of a story I once read about a convention of the animals. At this convention all the animals had been called together to decide the great question as to which should be called the most beautiful. The donkey was chosen as judge. After hear-

RHODE ISLAND REDS SUIT THE FARMER.

Mature early, lay early, and make superb dressed poultry. Have a yellow skin and legs as any fowl. Are not angular, bony and leggy when dressed, and have no dark pin feathers. Are hardiest, and lay largest (thick shelled pink tinted) eggs of any fowl of their size. Illustrated descriptive circular and price list of poultry and geese free. No stock now for sale. Eggs for hatching. **SAMUEL CUSHMAN,** Pawtucket, R. I.

THE MODERN STOVE POLISH



Enameline

**PASTE
CAKE OR
LIQUID.**

Every Package Guaranteed.

J. L. PRESCOTT & CO., NEW YORK.

Hardy's



White

Wyandottes

Win 1898,

All the first prizes at Portland, Me., and Peabody, Mass.; first and second prizes at Rochester, N. H.; first on pen at Haverhill, Mass., in hot competition with the best breeders of White Wyandottes in New England. Pullets in my breeding pens weigh 5 1/2 to 7 1/2 lbs., and great layers headed with fine White cockerels that will breed first prize birds for the winter shows. I shall sell eggs this season from my first prize matings at \$2 for 13; \$5 for 40; \$10 for 100; fair hatch guaranteed; incubator eggs from good matings, \$6 for 100.

C. H. HARDY, Box 108, Groveland, Mass.

BROWN EGG STRAIN

Barred Plymouth Rock,

\$1.50 per 13; \$4 per 100.

White Wyandotte,

\$2 per 13; \$3 per 26; \$5 per 39.

My White Wyandottes won at Beverly, Jan. 3-6, 1899, 3d on pen, 1 cultry; at Gloucester, Jan. 24-26, 1899, 1st on pen, 2d cockerel, 1, 2, 3 pullet, besides taking 11 premiums. My pen scoring cockerel, 92; pullets, 95, 94, 93, 93. I guarantee a good hatch.

OAKDALE POULTRY YARDS,
J. B. PICKETT, Wenham Depot, Mass.

GAPES. Will send sure cure receipt (filled at any drug store), and full directions, for 30 cents. **TRUE & CO.,** Neale, Pa.

EGGS FOR HATCHING.
White Wyandottes, Rose Comb Brown Leghorns, and Black Minorcas, \$1 a sitting. Oswegatchie Poultry Yards, Lawrence Cost, Prop., New London, Conn.

COLBY

BRED AND OWNS

10 HIGHEST SCORING Barred Rocks IN AMERICA

Shown by any one exhibitor at one show during the past season. This record was made at Amesbury, Mass., in strong competition, where 10 of my birds averaged to score over 94 points each, by judge Felch, president of American Poultry Association.

I won all 1sts competed for, many specials, and grand sweepstakes silver trophy for 10 highest scoring birds in the show.

All the above birds I bred and own, and also the birds which produced them, from which I shall sell eggs.

Prompt and careful attention given to orders.

Eggs, \$3 for 13; \$5 for 26; \$7 for 40.

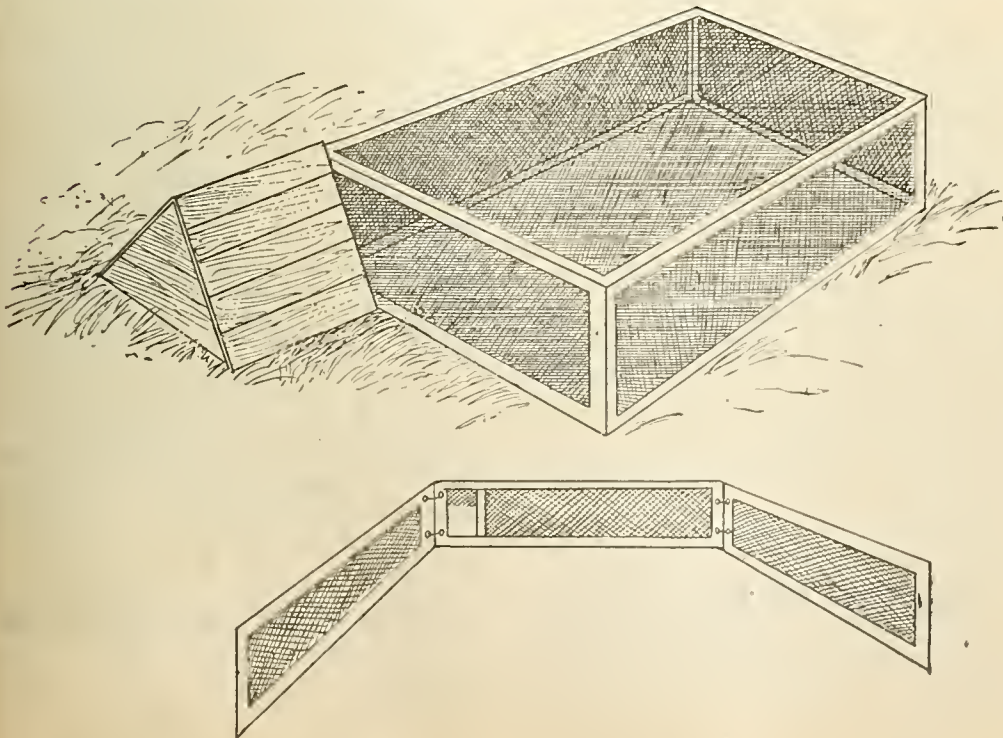
If you want the best, where can you get better?

F. E. COLBY, BOW MILLS, N. H.

Heavy Laying W. WYANDOTTES.

Eggs for hatching from hardy, vigorous fowls, bred and selected for practical purposes, \$1.50 per 15. Low express rates.

MIDDLESEX POULTRY FARM,
Box 7, Plainboro, N. J.



A CAT AND HAWK PROOF CHICKEN PEN.



POULTRY FARM OF JOHN BAUSCHER, JR., FREEPORT, ILL.

ing all the arguments for the rival candidates, and deliberating duly thereon, he gave his decision in favor of the hare, because "in the hare's beautiful long ears he fancied he saw a resemblance to himself when he was little." (An evil minded person suggests that this kind of (donkey) judging prevails to the present day; but having no experience in the show room, can't vouch for the truthfulness of the statement); but it is a fact, in spite of all assertions to the contrary, that the utility breeder pays as much attention to breeding for those points which go to make his flock pleasing to the eye as do our brethren of the "strictly fancy;" and it is a question, which we are quite willing to leave to the judgment of an intelligent public, if our birds with their creamy plumage, deep orange yellow legs, and solid red earlobes, do not compare favorably with the bird of chalk white plumage, pale yellow (or flesh colored) legs, and white earlobes. At this point all question of rivalry must cease, for as dressed poultry and producers of large dark eggs the utility birds are so much superior as to leave no room for discussion.

So it seems we have two distinct types of White Wyandottes, and, as the majority of breeders believe, the "Standard" recognizes the wrong one. On this point there are two opinions among the utility breeders themselves. Many believe that had the utility bird been recognized, that the breed in the hands of those fanciers whose sole ambition is to produce prize winners, would have deteriorated. High scoring birds, instead of prolific layers, would have been chosen for breeders, and the result would have been a falling off in egg producing qualities. Personally I am very well satisfied to leave things as they are.

The fancier has rights as well as other men, and the attempt on the part of the utility men to change the Standard to conform to their own stock, I never approved. It seems too much like tearing down your neighbor's house to build yourself a barn. The fancier was first in the field. He made the shows. He made the White Wyandotte, and then made his Standard. If the utility men have made a change in the breed which improves it for themselves, it does not necessarily follow that it improves it for the fancier. Then why force him to accept the change? Perhaps he is wrong; but if he is, 'tis one of those rare cases where a man is wrong and has a right to be. Some utility men raise a great hue and cry that they are cut off from showing their birds, and that had the proposed change been effected, it would have greatly increased the number of exhibitors. Don't you believe it! The taste of the average utility man doesn't run that way; but suppose the contrary to be the truth, what's to hinder forming a utility club and offering special premiums? The plan is perfectly

feasible as far as forming the club and offering the premiums.

There are one or two little things which might mar the beauty of this programme. First, the utility men would probably show just about as much interest as they did when Mr. Hazard offered special cash prizes for utility stock in Rhode Island; that is, none at all. Second, the wily fancier would recognize his opportunity, would step out among his country cousins and buy some good utility birds, and capture all their prizes— and then, Oh Lord, how he would advertise! "My stock the greatest combination of fancy and utility ever produced by scientific mating; who am I?—I am the great ——" but you all recognize the creature.

Verily, utility men have a field, and they had better stick to it, and cultivate it thoroughly. Leave the fancier alone with his playthings, and neither envy nor try to imitate him.

A prominent utility man who also is something of a showman, gave as his reasons for advocating a change in the Standard that he could get much higher prices for stock if he could breed prize winners. Doubtless that is so as far as a few birds are concerned, but there is a little something about selling birds to win prizes that does not commend itself to the conscience of a strictly honest man. No fancier can absolutely guarantee any bird he sends out to win a single prize; still he impresses his customers in some way with the idea that the bird will win; has to do it, in fact, in order to make a sale,—and when, as often happens, the bird fails to get even mentioned, the customer realizes when too late that he has not received the expected equivalent for his money. These are the birds that bring the high prices, and make our utility friends (some of them) envious. Two hundred dollars for a breeding pen, or \$75 to \$100 for a single bird, *does* look as though the "fancy" business paid; but the demand for birds at those figures is limited, and possibly the buyer gets something besides the birds for his money. Don't flatter yourself, my humble beginner, that if you had owned those birds they would have brought any such sum.

Then, too, before a fancier has acquired a reputation that will enable him to make such sales, the amount of his advertising bills and expenses in following up the shows, will foot up such a sum as to make our utility friend, who is learning to sing,

"I want to be a fancier,
And with the fanciers stand,"

reflect a little, and see that perhaps there is another side;—that the fanciers were not all in danger of becoming millionaires, and perhaps it would be as well to stick to the old utility crowd, after all.

In eggs and market poultry the utility breeder has a steady continuous income,

sufficient if he will give his time to the business and keep what hens he can care for, to give him a comfortable living, and if he will keep his stock bred up to a high utility standard his sales of eggs for hatching and stock for breeding purposes will round out this little income to one of very comfortable dimensions. There need be no great outlay for advertising. A satisfied customer is the best advertisement. He will come again, and bring his friends, and there is not the slightest reason why an honest utility breeder should ever have any but a satisfied customer. His customers do not call for a bird that will score so many points, or that will win at a certain show. Size, shape, yellow legs and skin, are the most important points, and with some customers the only ones considered. Others, in addition to these, will want a bird particularly strong in comb, color of eye, etc.; but whatever the order, there is nothing in it to prevent the breeder knowing exactly, before the bird leaves his yard, whether or not it will fill the bill.

So I would say to the utility brethren, do not be discouraged. Stick to the utility type, and keep the fancy bee out of your bonnet; conduct your business on business principles, and remember that the first of these is: "honesty is the best policy." This is a great old country, with lots of room in it, and the hen business is going to flourish for many a day yet; and the utility White Wyandottes, whether sanctioned or condemned by the A. P. A., will continue to hold first place as the best all around fowls yet produced.

Woodstock, Vt. RUSH VAUGHAN.

The Brooder That is Up to Date.

On a number of the poultry plants we visited this season we found that the proprietors were putting in brooders of the Peep-o'-Day pattern. When the weather opens up, the individual brooders can go out doors, and the housing capacity of the plant is thereby increased.

Fresh warm dry air is one of the most important essentials under the brooder hover, and clean dry bedding material is another.

There should be no places to crowd into. The up to date brooder has a round hover and a round heat radiator; there are no places where the chick can be crowded in, unable to get out. The heat is supplied by warmed dry pure fresh air taken from outside the brooder, and this air is always passing from the center

of the hover to the circumference, and out under the felt curtains. There is no draft, but a constant volume of warm dry air, which warms the chicks on all sides. If the chick wants to get away from the heat, he can find a way out to cooler air on all sides of the hover. Under such a hover the chicks do not crowd, but spread themselves out and enjoy life as much and more than their hen reared relations. Outside the hover the air is some degrees cooler, a desirable feature, and ample ventilators provide for the escape of the used air, which is constantly being replaced with warm fresh air from the heater. The hot air chamber under the floor furnishes a little bottom heat, just enough to keep the floor dry and comfortable. When used out of doors, a shed attachment adds to the value and usefulness by providing an open air exercising place for the chicks on stormy and windy days.

The lamp and lamp chamber of this brooder have not yet reached the degree of excellence that is found in the part occupied by the chicks; but as the inventor will stop at nothing short of perfection, we can look for marked improvement in this section.

We have described the Peep-o'-Day brooder as the up to date artificial mother. We believe that chicks can be reared better and more easily in such brooders than under hens. Last season we demonstrated to our own satisfaction that we could raise chicks in this way with a much lower mortality than under hens, and better chicks, too. So at the risk of having this article mistaken for a "puff," we are bound to tell the truth.

DR. WOODS.

MARKET REVIEW.

Eggs.—Eggs are in good demand, with fresh western at 14c. Receipts were large, but all are wanted, and the market is kept well cleared up. Eastern sell at same price as western, as the quality is about the same, but a few to 20c. Jobbing prices are 1 @ 2c. higher. The prevailing opinion is that the price of eggs will not go as low as last year.

Poultry.—Poultry is steady, with trade fair. Choice fresh chickens are firm. Turkeys, western, 10 @ 13c.; northeru, 12 @ 16c. Chickens, northern, 14 @ 20c.; western, 10 @ 14c.; fowls, northeru fresh, 9 @ 16c.; western, 10 @ 12c. Ducks, 9 @ 12c. Geese, 10 @ 13.

Mrs. Col. Richardson SAVED BY MRS. PINKHAM.

[LETTER TO MRS. PINKHAM NO. 72,896]

"You have saved my life, snatched me from the brink of the grave almost, and I wish to thank you. About eighteen months ago I was a total wreck, physically. I had been troubled with leucorrhœa for some time, but had given hardly any attention to the trouble.

"At last inflammation of the womb and ovaries resulted and then I suffered agonies, had to give up my profession (musician and piano player), was confined to my bed and life became a terrible cross. My husband summoned the best physicians, but their benefit was but temporary at best. I believe I should have contracted the morphine habit under their care, if my common sense had not intervened.

"One day my husband noticed the advertisement of your remedies and immediately bought me a full trial. Soon the pain in my ovaries was gone. I am now well, strong and robust, walk, ride a wheel, and feel like a girl in her teens. I would not be without Lydia E. Pinkham's Vegetable Compound; it is like water of life to me. I am very gratefully and sincerely your well-wisher, and I heartily recommend your remedies. I hope some poor creature may be helped to health by reading my story."—MRS. COL. E. P. RICHARDSON, RHINELANDER, WIS.

DWINNELLS'

WHITE WYANDOTTES

Won at Haverhill, Dec. 27-30, '98, special ten highest scoring birds, (score 931) 4th ck, 4th hen, 1 (952), 4 pul.; 1 collection. At Boston, Jan. 17-21, '99, 4th cock, Eggs, \$2 per 13; \$5 per 39. Breeding cock's left for sale.
P. E. DWINNELLS,
P. O. Box 4, Groveland, Mass.

:: RHODE ISLAND REDS ::

HAVE NOT BEEN SPOILED BY BEING CONFINED for generations in town back yard coops, or by being bred mostly for feather by the extreme fancier. They have been bred to suit the farmer.
SAMUEL CUSHMAN'S illustrated and descriptive circular free.

FARM-POULTRY PRACTICAL EXPERIMENT CLUB.

In this department all published matter pertaining to the Experiment Club and its work will appear. We want every member to feel perfectly free to ask questions and make suggestions. Discussions of topics suggested to members by their own record sheets are especially desired.

Another Letter from H. A. J.

Mr. Editor:—On account of illness I was unable to make up a report of the time occupied in the care of my two houses of poultry for the months of November and December, in time to send it in with my December Experiment Club report, as promised some time in the early winter; but now I am able to report the time for the four winter months in one paper, and hope it may prove of interest to all who desire to figure out the whole cost of poultry keeping, including labor.

The two houses are the same to take care of as one double house, since one opens directly into the other, and entrance to the first is had through a small supply room, containing grain, corn meal, bran, cut clover; on and ocher for lice quellers; a small table made of thick oak plank, on which to hash meat and reduce bones that are too large for my bone cutter. Bone cutter occupies the post of honor. By this arrangement I have not any long trips to take in getting from one point to another. Supply room door is just fifty feet from back door of house, my lot not permitting me to locate my poultry houses any further away. For the month of November my record shows that for feeding, watering, cleaning houses, cutting bone, and dusting or oiling fowls (twice), the time occupied was thirty-nine minutes per day. I charged up only half the time spent in cutting bone, and two-thirds of the time for cleaning houses, as my strength will not let me work as I would expect a hired man to work, and I wish to be entirely fair to the business. Dusting and oiling twice in November was the best and most profitable work that I have done in my poultry houses this season, as my hens are freer from lice than I ever had them before at this time of year, and I have always taken a great deal of pains in that regard. The oil used is olive oil and kerosene, equal parts. Olive oil prevents any injury from kerosene, and kerosene does away with any gumminess of feathers which a more viscid oil alone might cause. Hens oiled thus look clean.

I use French washed yellow ochre for dusting, and cannot see that it differs in its effects from pyrethrum or any lice powder offered for sale. It stains the plumage of white fowls somewhat. For the month of December the time spent was thirty-four minutes per day, there being only one dusting, and one weekly cleaning being omitted on account of bad weather, which I did not wish to expose myself to. No record for January; I was confined to the house a good part of the month, and my poultry had to get along with such care as my good wife could bestow on them. She is not very much devoted to poultry. February being an exceedingly cold month, and considering it necessary to feed more bone than usual to make up for the shortage of it in January, my hens having fallen off in egg production, I spent on an average forty-seven minutes per day in poultry work. We may reckon that if I had been able to attend the flock myself in January, the time used would have been about the same as in December; perhaps a little greater, as the houses would not probably have missed a cleaning, as in December. So for the four winter months we have a total of seventy-five hours, or an average of almost exactly forty minutes per day. There have been in the two houses during the time recorded about fifty hens and pullets; no males. I have set down daily only the time spent in such operations as I believe any careful poultryman would feel obliged to perform. The time occupied in closing windows and shutters at night, emptying water tanks, testing my hens while on their perches to see if they are too fat or too lean, looking them over while at work in their scratching pens to see if any of them are dull or off their feed, gathering and marketing eggs, and some other minor

operations, which many poultrymen perhaps omit, I have not counted, because some might say these things are unnecessary; and my purpose has been to find out how much time is absolutely required to run a flock of poultry; and I have been particular to describe in detail my operations, that all readers of the Experiment Club may be able to judge for themselves whether time has been well spent or wasted. Snow lay on the ground during the whole of December, but at no time has there been enough of it to give me any shoveling to do; so the labor for the winter has been less than was to be expected. Eight times as many fowls as I have would be as many as I could possibly attend to in winter, and to do that I should be obliged to have help in running the bone cutter. It must be remembered that eight times as many, or four hundred, would require sixteen houses, which would occupy a good deal of ground, and necessitate much more travel in proportion than my present little plant. For the next four months the work will be much in excess of the four months just past, on account of the protracted controversy with sitting hens, and the minute care to be bestowed on young chicks. However, the record will be kept and reported. If any man wants to time himself in his poultry house work, let him not depend on his watch. Three times out of four he will forget to look at it when he is through with a job. The only sure way that I know is to hang up a cheap clock (no matter how it runs) where he cannot avoid seeing it when he enters his poultry house. Then hang up a dummy with movable hands beside it, and when he commences operations, set the dummy by the clock, and note the difference when he is through. H. A. J.

Dubuque, Iowa.

Experiment Club Notes.

A Maine member asks: "Is skim milk at two cents a quart an economical food for hens and chicks? Can I afford to pay three cents a pound for fresh cut green bone for the hens?" We should consider skim milk at two cents a quart a very desirable cheap food for poultry of all ages. It can be fed to advantage in a variety of ways; fed plain for the fowls to drink; used for mixing the mash; and when sour the curds make inviting food, and the whey is available for the mash. At the price you name it is cheaper than cut bone. Good fresh cut beef bones ought to be worth two and a half or three cents a pound. Skim milk and cut bone are the two best animal foods for poultry.

One of our members gives as an excuse for his slim egg yield the following reasons: "Weather too cold. House not warm enough for this kind of weather. Too many lice." Here's a state of things. Use a little "elbow grease," and get rid of those lice. Clean up the hen house; we'll warrant that it is filthy. Get some "Quilt" or "Neponset" sheathing paper, and make the house warm for another season. Such an excuse is worse than none at all. Brace up. If you are going to keep fowls, don't neglect them, and waste your money feeding lice and the winter air. You don't deserve to get eggs, and that's the reason you don't get them.

A White Cochon member wants to know if a ten pound cockerel is likely to prove too heavy for his hens, and injure them. We see no reason why he should. He ought to be pretty near full grown by this time, and the standard weight for cocks is eleven pounds, and that for cockerels nine pounds.

One of our members reminds us of the Irishman who was fattening a hog. When asked why he fed the pig all it could eat one day and no food the next day, Pat replied: "Shure, an' don't I want to be getting a strake o' fat an' a strake o' lane?" This member's hens have been overfed, and have become too fat to lay well. He has shut them up, and will give no food at all for two days; then they are to have only a small portion of lean beef for a few days before any more grain is fed. This comes pretty close to being cruelty to animals, and what does he gain by it? Absolutely nothing, but to get his fowls out of condition for some time. If the hens were too fat, why not shorten up the ration all

round, and make them work (scratch) for the bulk of their food? That would have been a real benefit, and the fowls would have thanked him for it in eggs. Or was a "streak of lean" more desirable?

Regarding the effect of the weather on laying, a western member writes: "I have looked up my records for five years, and note that there is a drop off in the egg yield following every extreme low temperature of the winter season." This member breeds Brown Leghorns, and they are so housed that they are rather more exposed to climatic changes than we should care to have them. They are making fine egg records though, and their general good health proves that an abundance of fresh air does them no harm.

Here is a member who has not solved the labor problem. "My two pens have not had a fair test. I have had five different men in the past four months. It is hard to find one who will feed my way; they know it all; others would forget to close the doors at night, even in the coldest weather. It takes a long time to get hens back in shape after they have been half frozen."

Some of our members evidently think that we are gifted with "second sight." One member has sent in reports for the last three months with no name, address, name of breed, or number of fowls on them. In the February reports we find a set of records for three pens of fowls; the name of the varieties is given, but the sender does not give his name or address. Were you the careless one?

A member who feeds cracked corn three times a day, and a very little wheat in the litter once or twice a week, wants to know why his fowls do not lay better. If he really reads FARM-POULTRY he ought to know why they don't lay. Stop that everlasting corn, corn, corn, and feed a variety of food, as has so often been advised in the many articles on "feeding for eggs."

Hens Too Fat. Death From Ruptured Oviduct.

A California member who breeds Buff Leghorns, writes: "One of my hens died after being sick for two days. I opened her, and found that the egg passage had been ruptured, and a broken egg was in the abdominal cavity."

The abdomen was one mass of fat. I have quit using oil cake in the mash, and have reduced the quantity of mash one-half. I feed a morning mash at 8 o'clock, and evening grain at 4 o'clock—no noon feed."

Here is another of the evil results of overfatness, and in an active Leghorn, too,—another argument against the present system of feeding morning mashes. Had these hens been obliged to work all day for their grain, instead of getting a full feed of mash in the morning and another of grain at night, this trouble might have been avoided. They have good quarters, get considerable attention, have a scratching pen to work in, and comfortable roomy quarters. They have the run of a three acre orange orchard, and if they were not handicapped and made lazy by a hearty easily gulped down breakfast, they would be giving better returns than the records show. We should give them a morning feeding of grain in their scratching pen, and let them range on scratch for their breakfast and dinner as they pleased. An hour before roosting time let them have the mash food as a reward for a hard day's work. Such treatment would result in more eggs, and better condition of the fowls.

Some would-be authorities on poultry will still shout: "There is no such thing as an overfat hen; 'tis the fat hens that lay." Here is another death chargeable to overfatness, and in one of the most active varieties, too. The overfat condition, and the fatty degeneration of the oviduct resulted in rupture of the weakened walls, peritonitis, and death.

RHODE ISLAND REDS Have Not Been

Injured for business by being BRED TO AN UNNATURAL STANDARD for many generations. They are not thus handicapped, and we hope never will be. SAMUEL CUSHMAN'S illustrated descriptive circular of poultry and geese free.

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1 Packet Royal Pansies. Finest mixture ever offered, composed almost entirely of named sorts, such as the giant flowered *Tramarcade*, *Five-blotched Oiler*, *Bugnot's*, the new mauve *Coquette de Courcy*, *Parisian Fancy*, etc.
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Some good drakes \$3 each. Eggs—11, \$2; 22, \$3.50; 50, \$5; 100, \$8.

Our INDIAN RUNNER ducks won 1 duck; 1 drake. They're light feeders and great layers. Eggs, \$3 for 11.

We have several pens of choice

Barred Plymouth Rocks,
Bred from prize winners, and mated by an expert Rock breeder. Eggs from best yards, 13, \$3; 26, \$5. The same can be said of our White Rocks. Eggs, 13, \$2; 26, \$5. Eggs for incubators, \$6 per 100.

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Bone & Vegetable Cutters
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Roller Bearings, 10 Styles.
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WHITE WYANDOTTES

500 grand birds bred from my New York and Washington prize winners. They are large, white, and stay white; I refused \$100 for my first prize White Wyandotte rock at Washington. The judges pronounced him the best they ever saw. I have 200 grand chicks sired by this rock, and no one can sell you better. EGGS from 10 beautiful pens that are sure to produce winners.

Ad. opposite this page.
A. C. HAWKINS, Lancaster, Mass.

Sorry He Did Not Join the Club.

Mr. Editor:—I am sorry I did not join your Experiment Club last October, as I should like to see the average of the White Wyandottes brought up to what it should be, and I am sure my flock would have helped; but at October 1st my pullets had not commenced to lay, and I didn't want to be at the tail end.

I send a record of what they have been doing this winter. Somebody may say this is only a part record; that is true, but isn't it the part of the record we want,—when eggs are scarce?

You will notice there was pretty steady laying all winter during all kinds of weather. It wasn't until the end of the first week in January that all had got to laying.

I have had some valuable experience during the last two years, and if anybody will profit by it they are welcomed to it.

In January, 1897, I had 60 B. P. Rock hens and pullets, 6 cockerels, reduced to 54 and 3 in February. Received 491 eggs in January; 591 in February.

January 1st, 1898, stock was 68 hens and pullets, 5 cockerels, reduced to 57 and 3 in February. Received 116 eggs in January; 479 in February.

January 1st, 1899, stock was 41 White Wyandotte pullets and 7 cockerels, reduced to 34 pullets and 5 cockerels by March 1st. Produced 814 eggs in January, or 66½ per cent yield; 726 eggs in February, or 72½ per cent yield. Egg yield in December, '98, 402 eggs.

Now what do we get from the above figures? In the first place, in 1897 I had more fowls than I could do justice to, but I had very good success with them all this year, having splendid hatches. Result was I thought that the next winter I could keep a few more in addition to those I had. That was the first bad break. Another thing was that I didn't have earth enough on my board floor, which got damp, and would freeze up. The result was a rich lot of rumpy fowls, and scarcely any eggs in January, 1898.

I found the hatchet a guaranteed cure, and I fed the furnace on fowl for a week. I was wise enough not to breed from them, and succeeded in raising some nice Wyandotte chicks in 1898; but here I made another blunder in raising more than I could properly handle, and I paid dear for that experience; but I disposed of three-fourths of my flock, including all old birds, and settled down in the early fall with less than fifty fowls, and they improved wonderfully after the others were disposed of.

My first lesson was overcrowding. The second was too much dampness on floor. The third was raising more chickens than I could care for. Probably a good many have been through the same mill, and there are lots of others who won't take advice, but go through the same thing.

Last fall I filled my hen house with fine gravel, and it has kept very dry this winter, and my fowls have no use for grit, not having eaten a pint all winter.

Those who haven't bone cutters can get just as good results (I have had better) from feeding animal meal and clover. I had a bone mill, but I think too much of my back to ever use one again. I do think, though, that there is nothing like cut clover.

I feed a mash of provender and bran, with clover and animal meal added, and this mixed with boiling water or milk. I am a great believer in milk. I mix my grain, which consists of corn, oats, wheat and buckwheat. They also have table scraps and green food.

My hen house is by no means a model one, but is warm, being double, and the combs or wattles of the fowls are never frosted. They are made to scratch. Have been allowed out doors all winter during the coldest weather. I believe in thoroughbreds by all means, and pullets for winter layers.

My experience has been that a hen will take care of as many eggs in winter as spring, also that I have had just as good success from hatching eggs that have been kept in a refrigerator for twenty-four or even forty-eight hours as those kept in a warmer place.

Hazardville, Conn. E. L. P.

Not Feeding Right.

An Indiana member wants to know why his fowls do not lay. For morning food he

gives screenings, at noon cabbage, and at night corn. The report does not show any let up in this monotonous bill of fare; the same thing appears daily. Nothing is said about exercise, and it is quite probable that the hens are too fat. No mash food or meat mentioned. This member should read FARM-POULTRY more carefully, and apply what he reads. Had he done so, he would now be getting eggs instead of asking why his fowls do not lay. There is altogether too much sameness to his ration, and too much corn. There is not much variety in an endless repetition of screenings, cabbage, and corn.

He keeps only a few fowls, and therefore it is probably not convenient to stock up with any variety of grain in quantity; but he can easily get a few bags at a time. With wheat or oats for the staple grain, and one of the ready mixed "scratching feeds," he would have an excellent variety of whole grains. These will answer for the morning and noon feeding, and perhaps one or two suppers a week. If eggs are the object, there should be a night feeding of mash food at least five times a week. Here, one of the mixed ground foods put up by the cereal companies will fill the bill. If the American or H-O foods are used, we should make the mash one-half mixed food, and one-fourth each clover (meal or cut) and wheat bran. To this should be added the table scraps, and if the scraps do not contain a considerable percentage of meat, we should add a little meat meal; say 12½ per cent of the entire mash to be meat food. Such foods could be purchased in fifty or one hundred pound lots, and would not require any great amount of space for storage. With the above food, it will be easy to arrange a bill of fare that will provide the fowls with the variety needed, and at the same time furnish a regular ration that does not possess a sickening sameness. Keep the fowls exercising through the day until near roosting time, and then feed the mash. An occasional cabbage hung up within picking distance at the noon feeding time, will afford the fowls additional useful employment. Invest a nickel at the butcher's once a week, and get a sheep pluck; hang this up for them to pick at, and let it take the place of the meat meal in that day's mash. Give the hens good care, good food in variety, pure water, grit, freedom from vermin, and make them exercise, and you will get eggs.

A 212-Egg Plymouth Rock.

Mr. Editor:—I have been very much interested in the individual hen egg records that have been published in the Experiment Club columns.

I have kept a record of one of my Barred Plymouth Rocks for the past year. She was hatched in May, and in the fall was so sick that I thought I should lose her. I penned her by herself, and with good care brought her round all right. She has not had a sick day since. She began her laying year February 15th, 1898 as you will see by the record sheet.

Egg record for rest of February, 1898, 9 eggs; March, 23; April, 28; May, 30; June, 27; July, 31; August, 29; September, 20; October, 1; November, 0; December, 5; January, 1899, 3; first half of February, 6;—total, 212 eggs.

From June 21st to August 15th, she laid every day, making 56 straight days. She never was broody. Began to moult early in October, and did not begin laying until December 18th. I feel sure that she would have done even better if she had not been sick before she began to lay; but if she had not been sick I should not have put her where I was able to keep a record of her laying.

North Buckfield, Maine. Mrs. D. L. F.

Some Langshan Records.

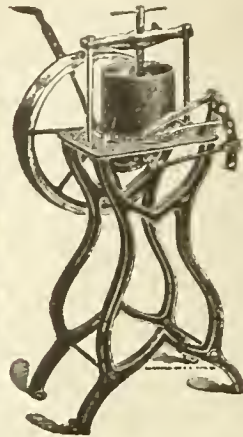
Mr. Editor:—I wish to give you the individual records of five of my Langshan pullets. No. 1 began laying October 27, '98, and laid 74 eggs in 97 days. No. 2 began November 17th, and laid 59 eggs in 76 days. No. 3 began December 4th, and laid 55 eggs in 59 days. No. 4 began December 22d, and laid 33 eggs in 41 days. No. 5 began December 25th, and laid 26 eggs in 38 days. Up to October 27th, these pullets had been fed on corn only, but since that time have been fed according to FARM-POULTRY teachings. This is my first experience, and FARM-POULTRY is my teacher. I could not get along without it.

Normal, Ill.

C. H. H.

Green Bone Cutters.

THE Webster & Hannum Green Bone Cutter, formerly made at Cazenovia, N. Y., is now being manufactured and sold by the undersigned. This Bone Cutter has always been a favorite with poultrymen on account of its many advantages over all other machines. With our unsurpassed facilities for manufacturing, it will be better than ever.



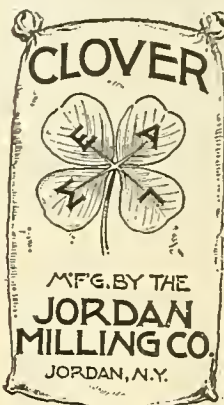
The new cutter-head is practically indestructible, absolutely self-feeding and self-regulating as to the supply of bone fed to the knives. It will cut meat and gristle equally as well as bone. Made in sizes suitable for hand or power use. Read what F. E. Dawley, Director, Bureau of Farmers' Institutes, New York State, says of it:

"I would urge every one who keeps fowls to feed green bone if they are after profit, and from experience would say, get a Webster & Hannum Cutter to do the work with. I am not at all interested in the sale of the W. & H. Cutter, and have paid full price for the one I use, so have no axe to grind."

F. E. DAWLEY.

Mr. Dawley raises poultry "by the acre." The only Bone Cutter receiving award at World's Fair, Chicago. Send for our free booklet, whether you keep poultry for pleasure or profit.

E. C. Stearns & Co., Box 4, Syracuse, N. Y.



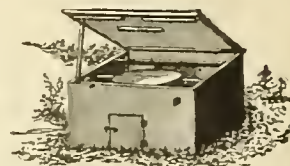
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Clover Meal will insure the egg yield in winter; it will insure more and stronger fertilized eggs; it will keep the hens in good health and vigor; it is equally as good for newly hatched chicks as it is for matured hens; it will assist in putting those choice birds in the pink of condition for exhibition; and it is especially good for moulting hens.

We have the advantage over our competitors, and can save our customers at least \$2 a ton freight, and from two to four days in getting their Clover Meal. Our Mill is at Jordan, N. Y., 17 miles west of Syracuse, on the New York Central and the West Shore Railroads, and Erie Canal.

Price of Clover Meal, \$2 per 100 pounds, put up in 50 pound sacks. Send for sample and free catalogue. We also manufacture the famous \$5 PRIZE BROODER. It stands without an equal as a complete brooder house, summer or winter.

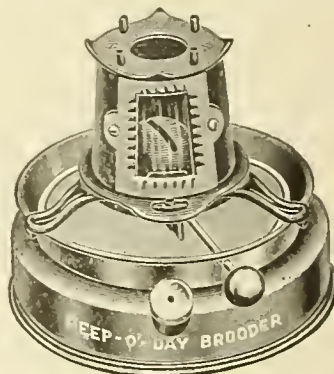
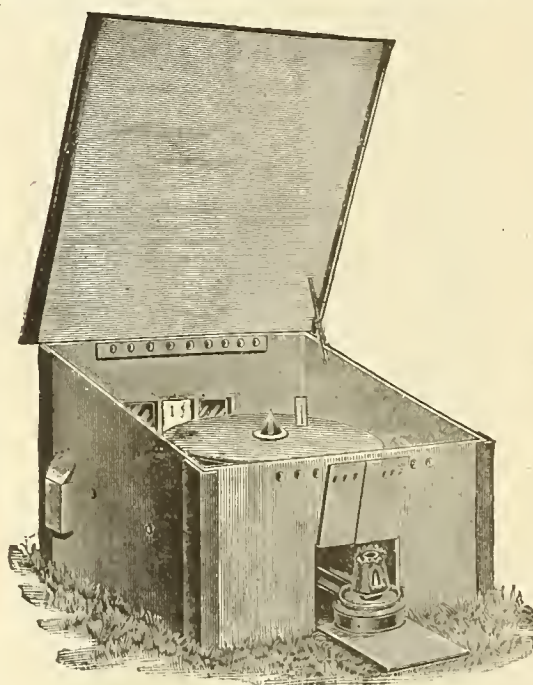
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Is made of brass, and will burn 36 to 48 hours with less oil than any lamp using a 1½ inch wick. It is seven inches high, and 8 inches wide.

Portable Poultry Houses and Coops that are light, durable and convenient. 1899 Illustrated Catalogue sent free. E. F. HODGSON, Box 25, Dover, Mass. FRED G. ORR & CO., 5 Commercial Wharf, Boston, carry a full line of our goods.

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WHITE - WYANDOTTES - BUFF. WHITE-PLYMOUTH ROCKS - BUFF and BARRED.

Are You Looking for Good Stock? We can furnish it.

60 Prizes Won at Some of the Leading Shows in the State in '97 and '98.

'97—At Ames, Ag. show, 1st on White Wyandotte cock; tied for 2d on hen; 1st on White Plymouth Rock cock; 2d on hen. At Newburyport, 1st on pair White Wyandottes; 1st on pair White P. Rocks. At Amesbury poultry exhibit, 1st on White Wyandotte cock; 3d on White P. R. hen. At Haverhill, 1st and specials on White Wyandotte cock; 3d on cockerel; 3d on White P. R. cock; 3d on breeding pen Barred P. Rocks.

'98—At W. Newbury, 1st on White P. Rock cock; 1st on hen. White Wyandottes, 2d on pair; 1st on pen of Barred Plymouth Rocks. At Amesbury agricultural show, 1st on pair White P. Rocks; 1st on pair White Wyandottes. At Amesbury poultry exhibit, 1st on White Wyandotte cockerel; 2d on hen; 2d on breeding pen; 1st on White Plymouth Rock cock; 2d on pen. At Haverhill, tied for 1st on White Wyandotte cockerel; 3d on cock; 3d on hen; 4th on breeding pen (within ½ point of 1st). White P. Rock, 1st and 2d on cock; 3d on cockerel; 3d on breeding pen. Buff Wyandottes, 1st on cock; 1st on hen. Buff P. Rocks, 3d on pullet; 3d on cockerel. Barred P. Rocks, 4th on breeding pen; 4th on hen.

'99—At Gloucester, Buff Wyandottes, 1st on cockerel; 1 pullet; 1 hen; 1 pen.

Price for eggs—1 sitting \$2; 2 sittings \$3.50; 3 sittings \$5; \$6 per hundred. Well bred stock, carefully mated. Satisfaction guaranteed.

VALLEY VIEW POULTRY YARDS, West Newbury, Mass.

Dr. A. H. PEIRCE, Prop., member White and Buff P. R. Clubs.

GEO. W. TORREY, Mgr.



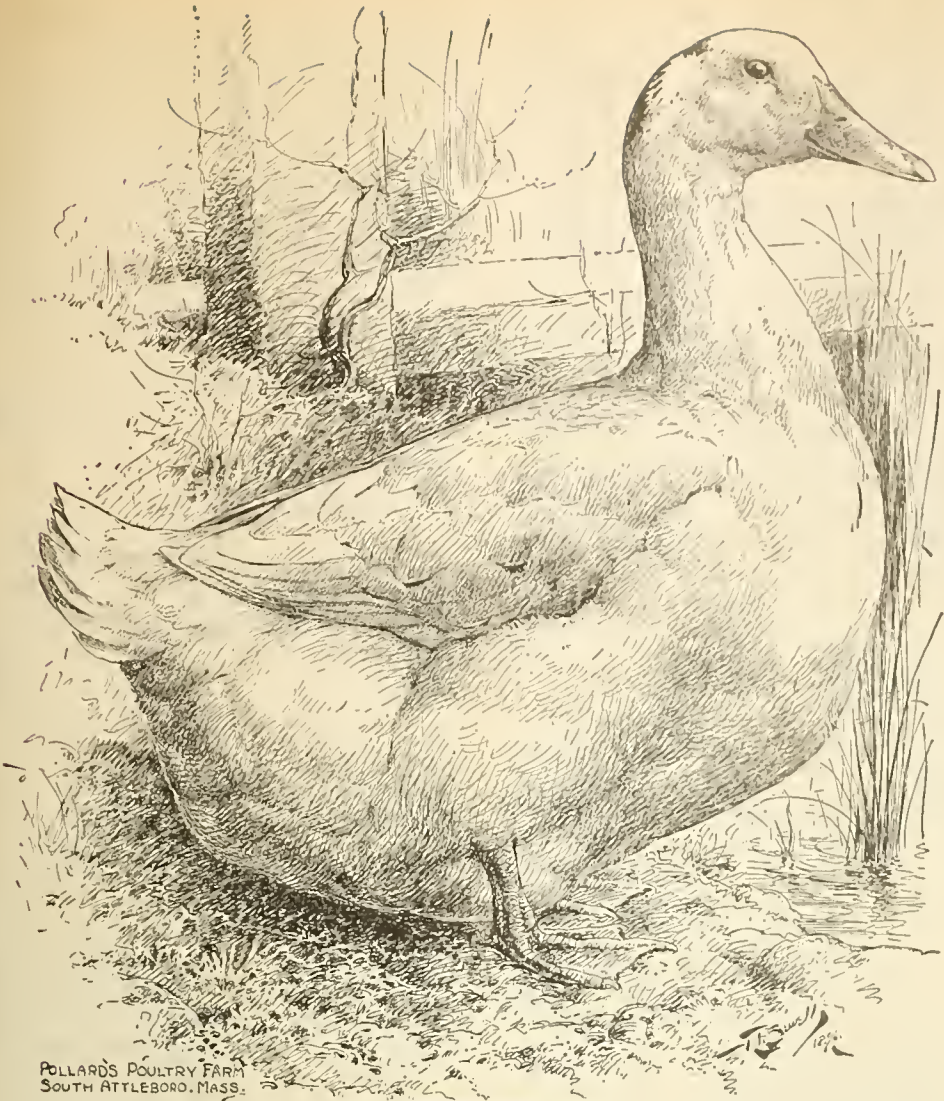
ANDREWS' "CROWN PRINCE STRAIN"

— OF —

WHITE WYANDOTTES, Won at Boston, again in '99,

4 regular and 1 special premium, including 1st hen; also winners of 53 regular and 11 special premiums, at the leading shows in America, including 22 first prizes. Stock of large size and great layers of brown eggs. Bred for utility as well as the fancy. Circular free if you mention F.-P. Satisfaction guaranteed. Eggs from my winners and the same yards as I set myself, \$3 per 13; \$5 per 25; \$10 per 75.

J. W. ANDREWS, Dighton, Mass.



POLLARD'S POULTRY FARM
SOUTH ATTLEBORO, MASS.

FIRST PRIZE - NEW YORK - 1898

FIRST PRIZE PEKIN DUCK, MADISON SQUARE GARDEN, NEW YORK, 1898.
Bred and Owned by Pollard's Poultry Farm, So. Attleboro, Mass.

February Summary.

Compiled from Reports for February of
Members of Club.

	No. Fowls.	Eggs.
Barred Plymouth Rocks,	604	4129
White Plymouth Rocks,	279	2588
Buff Plymouth Rocks,	42	447
White Wyandottes,	370	3778
Buff Wyandottes,	86	783
Silver Wyandottes,	97	842
Golden Wyandottes,	13	164
White Wonders,	10	100
White Leghorns,	344	2533
Brown Leghorns,	293	2068
R. C. Brown Leghorns,	16	162
Buff Leghorns,	49	433
Black Minorcas,	39	236
White Minorcas,	58	426
Aneonas,	12	57
Cornish Indian Games,	4	0
Pit Games,	16	168
Black Langshans,	4	21
Light Brahmas,	95	148
Buff Cochins,	15	209
White Cochins,	13	148
Partridge Cochins,	7	68
Black Cochins,	91	969
Black Hamburgs,	9	90
Silver Hamburgs,	9	154
Rhode Island Reds,	24	325
Mixed varieties,	706	5190
Crosses,	160	1510
Grades,	77	890
Mongrels,	116	872
Pekin ducks,	5	3

Highest Individual Records for February.

From the February individual hen egg records, we give the following highest egg scores for the month:

Barred Plymouth Rock, 14 eggs; White Plymouth Rock, 23; White Wyandotte, 19; Light Brahma, 16; White Leghorn, 15; Brown Leghorn, 15; Anconas, 11; grade, 17; cross, 19; mongrel, 7.

Record Keeping Helped.

Mr. Editor:—The Experiment Club has been a great educator to me, and last year I started in to keep a record of my hens.

The first thing I learned was that in one pen three of my finest hens were egg bound, and didn't lay an egg, when I thought they were my best layers.

The second thing I learned was that the

eggs from two hens that I bred from the first year, and their eggs hatched well, the second year did not hatch at all, although I changed males. Also that one hen that I used for two years as a breeder, failed the third year to produce any fertile eggs, although laying well and running with the male.

This winter I had two early pullets that laid well in November and December, got egg bound in January, and did not lay, but went on the nest every day, and finally I killed them and found the cause. I believe my roosts are too high, and they got injured jumping from the roosts.

I consider myself well paid for my trouble of keeping a record. We are having terrible weather, 48° below zero, and lots of snow. Eggs are still 35 and 40 cents, which has been the price for four months. With the best of wishes for FARM-POULTRY, and the success of the Experiment Club. O. A. Maiden, Mont.

Our Australian Member's Report for 1898.

Conditions governing poultry must be much the same in our antipodes as in the United States, as our Australian member, C. K. H., of Wagga Wagga, New South Wales, reports his flock of Brown and White Leghorns with a few Minorcas as averaging 137 eggs per hen for the year. The average for Leghorns reported for by U. S. members was a little better than 134 eggs per hen. In reading Mr. H.'s record of his flock we must remember that with him the months of September, October, and November are about the same for season as our March, April, and May. The climate is very much the same as that of our southern states.

The flock is reported as a whole, but is housed in five comfortable houses; fowls not used as breeders are allowed free range. The breeding stock is penned during the breeding season, which is through August, September, October, and November. For food they have a morning mash six days a week, made of kitchen scraps, green stuff, and bullock livers all minced and cooked and mixed with pollard and bran. This mash is cooked at night, covered, and allowed to stand that way over night, and is warm when fed in the morning. Penned fowls have green food at noon, the others range on grass land for their dinner. Wheat is the usual night feed, with an occasional feeding of hoiled oats, and during June,

July, and August, corn is fed one night a week.

The hatching record shows 716 chicks hatched out of 1120 eggs set; two poor incubator hatches are credited to faulty machines. The first lot of eggs set in August proved to be only 10 per cent fertile; second lot later in the month, out of 72 eggs only one was infertile. September and October eggs ran about 95 per cent fertile, and best hatches were had from these.

The year's record:

	Hens.	Av. number eggs per hen.
January,	190	14
February,	200	10
March,	215	10
April,	240	6
May,	300	4
June,	315	4
July,	315	5
August,	300	13
September,	280	17
October,	248	21
November,	245	18
December,	240	15

Average number of eggs per hen for the year, 137.

That Mash Food Symposium.

Mr. Editor:—Your Mash Food Symposium, in March 1st issue, caught my eye as soon as I opened FARM-POULTRY.

It seems to me that a correct solution of the feeding problem is to be found in this question of how, what, and when to feed the mash. When we succeed in getting eggs to the limit of the fowl's capacity, and these eggs remain nearly or wholly uniform in weight, size and shape, and at the same time the fowl retains its weight, we shall have solved the problem.

Your subscriber, Mr. A. M., of Attica, N. Y., seems to me to have hit the nail squarely on the head when he says that his birds are "ready and receive a 'great old bust' of mash at night." He puts a lot of meaning in three words. They should be so fed as to be ready for that "great old bust" of narrow mash to overcome the immense amount of carbohydrates fed them through whole grains; and what would be the result of feeding a "great old bust" of mash either in the morning or noon feed?

To complete the jamboree, we play on the fowls' natural inclination to fly at anything that is thrown to them, even after they have gorged themselves, and follow the "bust" with a handful of grain in litter.

Some of the things in that symposium give food for thought. One man feeds the morning mash because when fed at night he had two hens crop bound. Does he really believe that the night mash did it? Another thinks that in cold weather this soft food is liable to freeze in its crop. Mr. Editor, do you know what I would do with a hen whose crop froze during the night? It would be one of two things: I would either remove that crop at night after supper, and keep it warm near the furnace over night, or else (for fear her blood might freeze some other neck) I would do some blood letting from the neck, using an axe as my operating instrument.

I don't imagine I have tried all the feeding methods under the sun, but I know that I have tried all I ever heard of, kept careful records of how, when, and what I fed, with surrounding conditions, together with results; and while I am ready to change tomorrow or today, were a better method to present itself, as far as I have been able to learn best results have always followed such methods as conformed with my version of common sense, i. e., keep the fowls hungry all day, and so induce exercise; encourage them in their search for food by a handful of grain in deep litter twice a day, and have that "great old bust" at night.

Royal Blue

Was without a question the best Barred Rock that ever lived. He won two blue ribbons at New York. His sons and grandsons have been winners at many of the largest shows in America. 400 "Royal Blue" cockerels and 2000 females for sale at honest prices. If you wish to breed the best Barred Rocks, take the "ROYAL BLUE" line. See ad. opposite title page.

A. C. HAWKINS, Lancaster, Mass.

This night mash answers the threefold purpose of narrowing the ration, inducing exercise, and by digesting long before a grain feed will, has the fowls ravenous in the morning, ready and eager to begin their day's labors, and so keep them in good health, and that always means eggs to the limit of a fowl's capacity. A. J. SUMNERSTEIN.

Hartnest Farm, Framingham, Mass.

RHODE ISLAND RED MALES

Have not suffered solitary confinement in prison cells from fall to spring for many generations. One reason why the fertility of the eggs is high, and another why they just suit the farmer. CUSHMAN'S illustrated and descriptive circular free.

Points You'll Appreciate

No MIXED Statements.
We Have Nothing to Conceal. . .

DUSTON'S WHITE WYANDOTTES AT BOSTON WON

1st and 2d cock—showed 3.
1st cockerel and 3 c's—showed 5.
2d pullet ("Easily the gem of the class,"
—American Fancier), and 2 c's—
showed 5.
3d hen and 4 c's—showed 6.
Pens, 3 c's—showed 3.
Special BEST cock and 4 hens,
Special BEST 5 cockerels.
Special BEST cock.
Special BEST cockerel.
Special BEST 2 cocks, 2 hens, 2
cockerels and 2 pullets.
Special best cockerel and 4 pullets,
Special 2d best cock.
Special 2d best pullet.
Special SILVER CUP for largest and
BEST DISPLAY.

That's a record to be proud of. (Major Roessie pronounced it phenomenal in such company). It will take at least 4 other of the exhibitors together to show such a record in numbers, laying quality aside. I have mated up the finest line of breeding birds I ever owned, and am looking for some grand results from them.
For best eggs \$3 per sitting; 4 sits \$10; or \$15 per hundred.

ARTHUR G. DUSTON,
223 East Main St., Marlboro, Mass.

GAINLEY Bred and exhibited first prize exhibition yard of WHITE WYANDOTTES

At Boston, '99.
I have the same matings that produced the winners, and will sell eggs from same. My birds have won at all the leading New England shows. Descriptive circular on application. Eggs \$2 per 13.
GEO. L. GAINLEY,
100 Gardiner St., Lynn, Mass.

YOU MIGHT GO

Further and fare worse. My White Wyandottes are selected layers. My Buff Cochins are primstock. Eggs, \$1 for 13. E. E. BARNUM, Norwalk, Ct.

BARRED PLYMOUTH ROCKS.

Farm raised, strong, vigorous, wide awake business birds. Are great layers of brown eggs. Pedigree Coburn and Hunter, headed by a Latham male. Eggs, \$1.25 per 15, \$2 per 30.
E. W. HARRIS,
No. Acton, Mass.

AT BOSTON
Our White Wyandottes won sixth on cock. Eggs, \$2 per 13. Stock for sale. Cummaquid Poultry Farm, Box 117, Cummaquid, Mass.

Barred P. Rocks and W. Wys.

That have proved to be "in the swim" to date. At the R. I. Poultry show, Dec., '98, on 11 entries, won 9 regulars and 46 specials; every bird bred and raised by us, scoring from 99 to 95 points. Our B. P. R. cocks and cockerels won both 1st, 2d and specials. Eggs from pens headed by the prize winners, \$2 per 13. Circular free.

C. W. RICHARDSON & SON,
Meadow Lake Farm, Apponaug, R. I.

85 Premiums on 85 Entries

BOTH CHOICE AND PRACTICAL.
Barred and White Rocks, White Wyandottes, S. G. B. Leghorns, Rhode Island Reds, Black Javas, and Minorcas. Some Boston winners. Eggs \$1.50 per 13; 60 for \$5; circular free.
GEO. A. CHAPIN, Hampden, Mass.

FARM-POULTRY.

Semi-Monthly.

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A. F. HUNTER, Editor.

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22 Custom House St., Boston, Mass.

Green Wrapper

When You Receive FARM-POULTRY in a Green Wrapper your subscription ends with that issue. Therefore, please send cash \$1.00 to renew—for—

We Shall Always Stop the Paper when the time for which it is paid has expired; so that to avoid missing numbers all should renew promptly.

Get a Couple of Neighbors to club with you, and we will send the paper to the three parties a full year all for \$2.50, cash or stamps, if all sent at one time.

Change in Address—When ordering a change in the address, subscribers should be sure to give their former as well as their present address, or we cannot make the change; our list is kept by towns first.

Canvassers Wanted in every town to solicit subscriptions. Terms sent on application. Liberal commission paid in cash. Send for our Terms to Agents.

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Is 30c. per Agate Line Each Issue.
Fourteen Lines in every Inch of single column space. Seven average Words make one line.

DISCOUNTS FROM ABOVE RATE depend entirely upon the amount of space used by an advertiser within a stated time. Send for Rate Card.

FORMS CLOSE.—Ads. must be received by the 5th and 20th of the month to insure insertion in the issues of the 15th or 1st, respectively.

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EDITORIAL.

That Charge of "Stealing," Again.

In an article headed, "The Truth Is Mighty," in the *Reliable Poultry Journal* for March, editor Curtis reprints our editorial article, "Let Us Have Facts," in February 15th F.-P., and then proceeds with several columns of iteration and reiteration of a charge of "deception, a 'put up job,' on the readers" of this paper, in that we printed, in the September 15th F.-P., at the request of the *Reliable Incubator Co.*, an article written for the *Reliable Incubator Co.*, describing a Norwegian poultry farm; and printed it, as suggested by the *Reliable Incubator Co.*, as though written for this paper.

What has become of the original charge of our having "stolen" that article? If you please, editor Curtis, you first charged us with having "swiped" that article, and that term was afterwards changed (by you) to "stealing." Wouldn't it be well to clear up that rather serious charge before permitting your serenity to be disturbed by a matter which lies solely between FARM-POULTRY and its readers?

Did we "steal" your article? Was the article ever "yours?" Will editor Curtis please stand up and answer? Was not the article furnished to you by the R. I. Co.?

In his endeavor to get out of the bad hole he has got himself into, editor Curtis makes more statements, amongst them one that we printed the Norwegian article from the advance proofs of the *R. P. J.* print of it, which advance proofs were sent us by the incubator company in their letter of August 17th, '98.

Would editor Curtis have us believe he cannot understand the English language? Cannot he read in that letter of Pres. Meyers, the words:—"and if you desire, we will send you the original article as received by us from Gabriel Persen" (itane ours). We wrote Pres. Meyers August 20th, in reply, that we would publish the article, as per his request, and would prefer to have the original

article, whereupon he immediately forwarded the pen written Persen article, and half-tone cuts.

It is worth while noting that the *Reliable Incubator Co.* did not themselves think it essential that the original Persen article be sent. They clearly understood that they owned the article, that it was written for them, (just as we have claimed all along), and that they had a perfect right to have us print it from the page proofs they first sent us; still, they would forward the original article if we so desired; and as we told them in reply that we would prefer to have it, they immediately forwarded it, with the half-tone cuts.

Now, Mr. Editor Curtis, we desire to ask you a question: You have claimed, and repeated the claim, that that "Norwegian Poultry Farm" article was "written for the *Reliable Poultry Journal*." If that is true, how came it about that the *Reliable Incubator Co.* had the original manuscript article in their possession and offered to forward it to us the last week in August, 1898?

Please clear up this first question, Mr. Curtis, and we will then proceed to ask you another. The chapter isn't ended quite yet.

A Boy Farmer.

We publish in our correspondence department of this number a letter from a boy farmer, who is much interested in his poultry and cows, and is making money with them in spite of the disadvantages of living in a city. His father writes us:—

"My son is much interested in cattle and fowl, and at twelve years of age he announced his intention of becoming a farmer. His resolve may not be as fixed after three years time, but his interest still continues in the latter, heightened by the regular reading of your excellent paper. He has long desired to send you some of his experience for publication should you so desire, and I enclose an uncorrected letter from him. I might add that in addition to what he says, he has kept himself well provided with pocket money, the only restraint upon spending it being that he must first consult his parents before making extended purchases.

"In these days of migration of the young men from the country farms to city mercantile life it may be refreshing to see that an occasional city boy enjoys the independence of the country home. Yours very truly,

NATHAN A. GIBBS."

We are very glad to see an occasional turning towards the "liberty" of a life in the country, and Master Gibbs' letter is published with pleasure and our cordial endorsement.

Our Clubbing Offers.

Some of our readers seem not to understand it is their privilege to take advantage of our clubbing offers when renewing their subscriptions. A subscriber writes:

"Can an old subscriber take advantage of any of your advertised clubbing offers in renewing his subscription to F.-P., or are those offers for new subscribers only?"

Most certainly any one (old or new subscribers) can take advantage of those clubbing offers, and anyone whose subscription has not expired, can take advantage of clubbing offers, having his F.-P. subscription extended for a year beyond expiration of current subscription.

They Want Binders.

Every reader of this paper ought to have a "binder" in which to preserve the numbers of the paper as they arrive, so they will be accessible for instant reference when wanted. FARM-POULTRY isn't a paper to be glanced over and thrown aside; to get the full value and helpfulness of it, it should be studied, and its recommendations put in practice. Take the chicken article on the first three pages of March 15th number as an example. How many times this spring will one want to refer to that to get light upon some question of feeding, or cooping, etc. How vexatious to go tumbling over a pile of papers in search of that number, and then, possibly, not find it. Having a binder, and filing the numbers away as soon as read, one can instantly refer to any article or number—and a binder saves its cost in vexation of spirit many times over.

We sell a splendid binder—the Shipman "common-sense" binder, for one dollar, and

it will last for years. After a year's numbers are filed, slip them out of the binder, reeve a shoe lacing through the holes to secure that complete volume, and use the binder over again.

Get a binder, (we send them by mail post paid on receipt of price), and preserve your FARM-POULTRY as they come.

The Standard Reprinted.

The first edition of the *Standard* has been out of print for some weeks, and a new edition, into which the corrections voted at the Toronto meeting have been incorporated, has now been made.

Send us one dollar, and we will send you a copy of the *Standard*, by mail; or we will send a copy of the *Standard*, and F.-P. one year, for \$1.75.

Back Numbers.

A reader complains that he hasn't now got the June 15th, '98, number of F.-P. "has lent it, or something," and "how can he get another?" He can get that (or any recent) number of this paper by sending five cents to this office for it. Another reader writes to ask if we can supply any back numbers. Usually,—if not more than three years back. There are one or two numbers out of print, and those we cannot supply; but any other we will send on receipt of price.

The Letter Never Came.

We have a postal card from a reader in Hull, P. Q., saying that he wrote us a letter about February 20th, enclosing five cents to prepay postage on the reply, but has not received a reply.

The only explanation is that the letter failed to reach us; had it done so, the letter would have been answered. Probably the five cents was in coin, and some postal clerk thought it worth "swiping." Our Canadian friends could send Canadian postage stamps to prepay postage; we can use Canadian stamps in our business.

Histories of Different Breeds.

A correspondent in New York city asks us where he can get a full description of the different breeds of fowls, with their individual merits; and another writes from Ohio for a history of the Buff Cochins. We published such descriptions and histories in FARM-POULTRY, beginning September 1st, 1895, each breed being accompanied by a fine illustration of a representative pair of the breed, drawn especially for us by Sewell,—and any number can be supplied from this office, postpaid, for five cents. The breeds and dates are as follows:—

Barred Plymouth Rocks,	Sept. 1, 1895.
White Wyandottes,	Oct. 1, 1895.
Partridge Cochins,	Nov. 1, 1895.
S. C. Brown Leghorns,	Dec. 1, 1895.
Light Brahmas,	Jan. 1, 1896.
Black Spanish,	April 1, 1896.
White Plymouth Rocks,	May 1, 1896.
Pekin ducks,	June 1, 1896.
Silver Wyandottes,	July 1, 1896.
Black Minorcas,	Aug. 1, 1896.
Buff Cochins,	Oct. 1, 1896.
S. C. White Leghorns,	Oct. 15, 1896.
Mammoth Bronze turkeys,	Nov. 1, 1896.
Buff Plymouth Rocks,	Dec. 15, 1896.

That list pretty much covers the more popular varieties, and the great majority of poultrymen can find their special breed in it. Any one of those numbers will be sent postpaid from this office on receipt of the price.

Correcting a Correction.

On page 91, Feb. 15th F.-P., we published what we had been informed was a correction of awards on Houdans at Boston show, and in the correction stated that 1st cockerel was won by Mrs. A. W. Tyler, Peabody, Mass.

This was a mistake; Mr. W. A. Rogers, Wilmington, Mass., won 1st on Houdan cockerel, and 2d on cock at that show; Mrs. Tyler winning 4th on pullet only.

Are They "Called" to Poultry?

A correspondent who has been a preacher, and is now trying poultry raising, writes us:—"You should send sample copies of F.-P. to all students at theological seminaries, to give those young men a chance to know whether they are 'called' to preach, or wouldn't better go to raising poultry."

There is merit in the suggestion, as there are some men in the pulpit that better be on a farm, and vice versa.—there are men on farms who would adorn the clerical profession. There are "round men in square holes" in a good many places in this world, but poultry raising may not be the cureall for their various ills. There are "failures" in the poultry business just as in every other, and the fact that a man hasn't succeeded in one or two or three other pursuits, in no way assures that he will succeed with poultry.

There is "profit in poultry;" a good living can be made from poultry, plus a garden and cow; but it takes some work and some common sense to get it out.

A Valuable Bulletin.

Be sure that your poultry get some animal food. This advice has been frequently given by the most successful feeders, but experiments made at the station at Geneva emphasize the desirability of such food, and seem to prove that it is a necessity, at least for ducks. Full details of the feeding trials are given in Bulletin No. 149, which will be sent to those applying for it.—"New York Agricultural Experiment Station," Geneva, N. Y.

New York Station, Bulletin No. 149.

That it is desirable to feed poultry animal matter in some form, has been long taught by scientific feeders; but the great utility of such feeds has probably never been so plainly shown as in experiments recently made by the station at Geneva. Two rations were compounded, each of foods in ordinary use, approximately equal in nutritive value, but in one the protein, or nitrogenous material was supplied wholly from grains with some skim milk, while in the other about two-fifths of the protein came from dried blood, animal meal, and fresh bone. Upon these rations the station fed two lots of chicks until they were about five months old, one lot starting at birth, and the other at six weeks of age, one pen in each lot receiving the grain ration, and the other the meat meal ration. With each lot the meat fed birds grew faster, reached maturity earlier, ate less food for each pound of gain, and produced a pound of gain at less cost. Pullets among the meat fed birds also began laying four weeks earlier than any among those receiving only vegetable foods. With cockerels fed the contrasted rations the differences in favor of the animal meal were quite marked during the first part of the test; but when the birds attained full size and began to fatten, the benefit from the meat seemed to cease, showing that its great advantage lies in promoting rapid, healthy growth, not in its fattening power.

With ducks the results were even more striking, for the grain fed birds remained stunted, scrawny, and feeble, several of them dying before the test ended; while the meat fed ducklings grew well, remained perfectly healthy, and weighed three times as much per bird as the others at the end of ten weeks.

Those interested may obtain the full account of the experiments in Bulletin No. 149 of the station, which a postal card request will secure.—"New York Agricultural Experiment Station," Geneva, N. Y.

A Few Compliments.

Best of Six.

I have been taking FARM-POULTRY for six years, and could not do without it. It is the best of six papers that I have taken.

Newton, Kansas.

J. M. R.

A Valuable Paper.

Gentlemen:—I enclose one dollar for you to send us FARM-POULTRY for one year. We find chicken raising a dead failure without the assistance of your valuable paper.

The "up to date" chicken believes in good sound literature.

Greenwich, Ct.

T. Bros.

Is Practical and Valuable.

I am already a subscriber to FARM-POULTRY, and my time is about out. The paper fills my wants so completely I can't do without it. Please allow me to thank you for so much practical and valuable matter in FARM-POULTRY, and for the great good it has done me.

Wishing you the greatest success.

Danielsville, Ga.

W. S. S.

ANSWERS TO CORRESPONDENTS.

Correspondents who enclose stamps for reply receive immediate answers by mail. When no stamps are enclosed questions which are of general interest and have not recently appeared here are printed with answers in this department. Several correspondents sometimes write at about the same time to ask the same question. Of course only one inquiry is printed. Look for the answer to your question, not for your initials and residence.

Questions Briefly Answered.

[Any of the numbers of FARM-POULTRY referred to below, will be supplied at the rate of five cents each].

FEATHER EATING.—(W. W., North New Salem, Mass.): Your fowls have the feather eating habit. Read the article on that subject in March 15th FARM-POULTRY, page 121.

LIGHT BRAHMA EGGS.—(M. F. L., Bedford): We must refer you to advertisers for Light Brahma eggs for hatching. We presume that those who have eggs to sell advertise them, and, naturally, we cannot recommend those who do not advertise.

KEEPING EGGS FOR HATCHING.—(J. W. H., Kingston, N. H.): Eggs intended for hatching can be kept about a month, all right, if kept in a cool dry cellar, (say 40 to 45 degrees), and turned carefully about three times a week. You ought not to sell eggs for setting that are more than two weeks old.

SIZE OF YARDS.—(O. R. D., Jr., Philadelphia, Pa.): You will find size of yards discussed (and illustrated with a diagram) in the scratching shed house article, June 15th, '98, F.-P. We do not recommend larger yards than those given there.

WHITE LEGHORNS.—(H. E. F., Olivet, Mich.): You will find a full history of the S. C. White Leghorns in October 15th, '96, F.-P., which you can have sent you from this office for five cents.

ARTICLES ON INCUBATORS.—(T. J. K., Harvey, Ill.): You will find several articles on running incubators, in F.-P. for September 1st, 1897.

Is There Profit in Raising Chickens?

Mr. Editor:—Knowing how to hatch and raise chickens artificially, would there be any money in buying eggs at \$6 per hundred, and raising chickens for roasters; hatching the year through, and putting two hundred roasters on the market each month? My plan would be to raise the chickens in yards,

fifty chicks in each yard. First a brooder house six feet square, and yard 6 by 15 feet for each family of fifty chicks. After leaving the brooder, to be in yards 6 by 25 feet, house 6 feet square; after outgrowing these yards to be placed in yards 8 by 50 feet, with house 8 by 10, and remain till killed. J. E. R. Plymouth, Mass.

Something would depend upon the man. For example: If it cost 80 cents each to hatch, raise, kill and market his roasters, and he could get but a dollar and a half a pair for them, there would not be much profit in it. If it cost him 60 cents to hatch, raise, kill and market his roasters, and he could get \$1.50 per pair for them, he would make \$15 on each hundred marketed.

There is money to be made in raising chickens for market if one will raise the very best and get top prices. We would not, however, if we were going into this line exclusively, buy the eggs, chiefly, because the boughten eggs are almost invariably lower in fertility and hatch less well than home made eggs. Miles Standish said, "He who would be well served must serve himself," and that translated into chicken wisdom would read, "He who would hatch and raise good chickens, must produce the eggs himself." There is one disadvantage in it, however; a man cannot kick himself when the eggs are low in fertility and hatch poorly, as they invariably will be at times.

Whether you could hatch the year around, would be a question, for this reason:—you probably could not get reasonably hatchable eggs in certain months of the year, as, for example, September, October and November.

That is where one would have an advantage if he kept his own breeding stock and planned for a "succession" of eggs. He could get them by careful planning, but he would have to work for them, just as does the market gardener who gets three or four crops a year off one acre of ground.

There would be another factor. The April and first half of May hatched pullets would be worth more to sell as laying stock in October or November than they would fetch as roasters. Why not pull that string, too? To be sure they should be raised somewhat differently, and should be given more range after leaving the brooder, and should be fed a bone, flesh and muscle making food rather than a food in which the flesh formers predominated.

Your plan of houses and yards is all right, with some limitations. For example, the chickens would need to stay in the brooder house, till six or seven weeks old in December, January, February and March, while in the spring and summer months they could be graduated from the brooder house at four weeks old. You will see that there are a good many points to be considered.

Feeding Questions.

Mr. Editor:—How much can I afford to pay for pin head oat meal to feed to young chicks, the pullets to be for my own use, and the roosters sold in the fall for roasters? I can buy it here for \$1.25 cents a pound, with a small discount for quantities. Can I afford to pay that—or if not, where can I buy it cheaper in small lots?

I notice that many poultry keepers feed millet seed.

The only kind usually sold here is Hungarian millet, or Hungarian "grass." It is usually called, "Is that as good as any?" If so would it not be a good plan to sow a small piece of this, let the seed ripen, but store without the shuck, and throw in a little every day and let the hens shell it? Seed costs about \$1 per bushel here. S. S. C. Hardwick, Vt.

How much you can afford to pay for oat meal, is a somewhat difficult question to answer. We buy it by the barrel at a cost of about 2c. to 2½c. a lb., buying of wholesale grocers. Write to a wholesale grocer in Rutland, Burlington, or St. Johnsbury, and get a price on it per barrel. The freight from any of those points would not be heavy. If you raise many chickens you can well afford a barrel in a season. It is a splendid food, and economical because it spends so well.

Think your plan of raising millet, or Hungarian grass (there is no difference for your purpose), would be a very good one.

Pale Egg Yolks.

Mr. Editor:—My hens lay eggs that have pale colored yolks. The neighbors say that eggs with such pale yolks will not hatch. Is this true? What can I do to get the yolks darker? M. B. Portland, Me.

There is no reason why eggs with pale yolks should not hatch as well as those with bright orange colored yolks, if they are fertile. The color of the yolk is influenced by the food. Feed plenty of cut clover and some corn, and the yolks will be yellow enough to suit you. Fowls fed largely on buckwheat and wheat often lay eggs with light colored yolks; but it does not affect the fertility or hatching.

LOUSY BREEDERS

Cannot produce a good percentage of fertile eggs; the few that do hatch will be weak puny things, a disgrace to their owner, and dreadful poor property, except to coddle and pet to no profit. Lice sap the vitality that is needed along with the germ of each egg to give kick and get there to the coming peeper if he is to withstand the ups and downs of chickendom. It is only the matter of a few cents and minutes to dust your entire pen with Lambert's Death to Lice Powder, and you will lay a foundation for a healthy flock of chickens, besides inducing a larger egg yield at once.

LOUSY SITTERS

Will leave their nests at every opportunity, grow thinner and thinner, often die before hatching time. Lambert's Death to Lice Powder will clean a hen either sitting or standing the minute you put it on. It positively does not injure the hen, the eggs, or little chickens should they hatch in it. A sample 5 oz. box that we send for 10 cents, will convince you of its superior merits. If you want to know what

CLEAN BARRED PLYMOUTH ROCKS

Will do in the way of producing fertile eggs and strong healthy chickens, send me \$2, and I will ship you a sitting from as good or better than the average Barred Rocks. For \$3 I will send you 13 eggs from the best matings, which are as good as the best you buy. Eggs for incubators at \$6 per hundred. We mate our birds right, pack eggs right, ship right, and furnish directions: "How to Set a Hen," with every egg.

DEATH TO LICE REMEDIES.

"Powder" for dusting fowls and sitters, 5 oz. sample, 10c. postpaid; 48 oz., 50c.; 100 oz., \$1, by express from here or nearest agency.

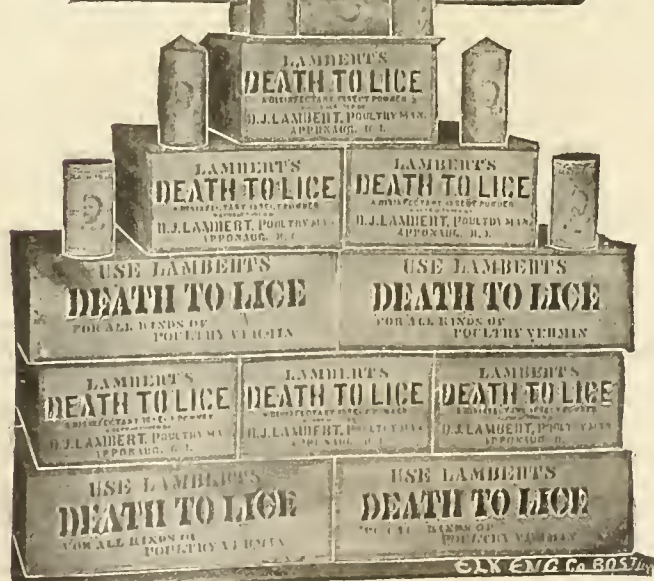
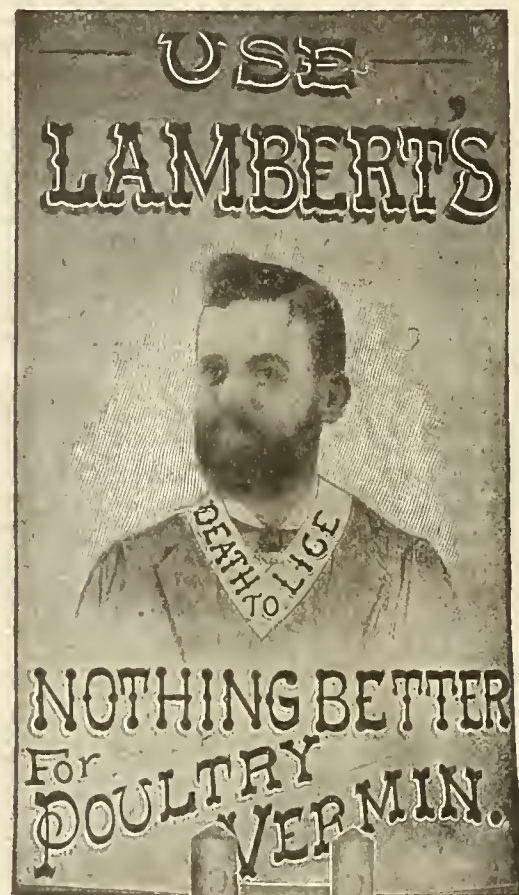
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"Special" for making a liquid louse or mite killer, 4 oz., enough for one quart, 10c.; 16 oz., 40c. postpaid.

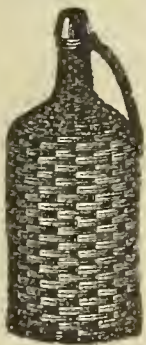
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Extra fine California Port, Angella or Sherry, fine blood maker, per gal., \$1.00; per bottle, .25c.
Tarragona Wine, splendid for invalids, per gal., \$1.75.
Kentucky Hampton Rye Whiskey, per full quart, sealed, \$1.00.
Usher's Scotch Whiskey, imported in glass, per bottle, \$1.15.
St. Julien a fine California Claret, per case, \$3.00; per bottle, .25c.

We shall try our best to satisfy you, because we believe that a satisfied customer is the best advertisement we can have. If you have any fault to find with the goods, or the prices, or the salesmen, we will gladly listen to the complaint, give you justice, and thank you for your trouble. And, too, this will help us to improve even upon our best efforts.

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Lay early and surprisingly large and heavy eggs, as well as fertile. That's why they are so popular on the farm. **SAMUEL CUSHMAN'S** illustrated and descriptive circular free.

FORTY-ONE PRIZES FOR DAVIS'

Blue Barred Plym. Rocks

AT TWO SHOWS.

At Amesbury, Mass., Dec. 1-3, '97, I. K. Felch, judge, my birds won 1st (94) and 2d (93) cock's; 2d pullet (93 1/2) (same score as 1st prize); 2d hen (93); 3d cock; 1st and 2d pens (Grand sweepstakes for best cock, 2 cockerels, 2 hens and 5 pullets), the Silver Cup Trophy for best display, and 9 specials, in close competition, with 143 birds in the class.

At Haverhill, Mass., Dec. 27-30, '98, my birds won 1st, 3d, and 4th cockerels; 1st, 2d, and 3d pullets; 1st, 2d, and 3d hens; 2d and 3d cocks; 1st and 2d pens; the **GRAND SWEEPSTAKES** for the best cock, 2 cock's; 2 hens and 5 pullets. The **SILVER CUP** for finest display, and **EIGHT SPECIALS**.

I won three times as many prizes as all my competitors combined.

My strain of P. Rocks are noted for their light blue barring, rich yellow legs and beaks, low combs, fine symmetry, and are excellent layers. Send for my 16 page catalogue giving a full description of my matings for 1899 and my show record.

EGGS

from my prize matings, \$3 per 13; \$5 per 26; \$7 per 40. I guarantee the safe arrival of eggs and a good hatch.

W. B. DAVIS,

Care Merrimack Nat. Bank, Haverhill, Mass.

BREEDERS AND MARKETMEN.

OUR REQUESTS:—We make two requests of our subscribers. One is when writing our Advertising patrons always mention **FARM-POULTRY**. Another is if you ask them questions, always inclose a stamp. If you observe both of these requests it will benefit you amazingly. It shows that you mean business. Remember, "Molasses will catch more flies than vinegar" and those who observe it are served first.

A BAD WICK is worse than none. Use only the Sunlight Carbon Wick, 10 cents for sample. S. G. Robinson, printer F.-P., 257 Atlantic Ave., Boston.

A BARGAIN. W. Leghorns, Lt. Brahmas, very choice. Eggs \$1.50. C. B. Travis, Brighton, Mass.

A BARGAIN. Eggs \$1.25, 13; \$3.40, from 2 pens each. Gold, Silver and Buff Wyans, also stock. Under date 3, 13, 99. Gingers Bros. of Turner's Falls, Mass. "Rec'd the Sil. Wdl. cockerel. He was just as you represented him to us." 2, 21, '99, John Ryland, Bridgeport, Conn., says, "Golden Wdl. cock 1 arrived and is perfectly satisfactory." 3, 10, '99, P. D. Schofield, Woodstock, N. H., "Rec'd the Silver Wyandotte cock 1, and he is a beauty." Not one complaint this season. F. S. Tenney, Peterboro, N. H.

A. P. ALLEN, Wesleyville, Pa. Lt. Brahmas, B. P. Rocks, S. C. W. Leghorns, W. Cochins, S. S. Hamburgs, Pekin ducks. You can order eggs directly from this. \$1 per 13; \$2.50 per 40; \$4.50 per 100.

BUFF LEGHORNS, Arnold and Shepherd strains. Eggs \$1 per 13. Geo. A. Hurlbert, Cuyler N. Y.

BUFF ORPINGTONS, Buff, Wh. and B. P. Rocks; Buff, Wh. and Br. Legs; Buff, Wh. and Lace Wy.; Buff and C. I. Games; Minor, Langs., P. Ducks eggs at cut prices. Cir. L. C. Beatty, Washington, N. J.

BUFF P. Rocks and Buff Wyandottes; 32 prizes won '97 and '98, in Rochester, Amesbury, Haverhill, and Beverly. Eggs, \$2 per 13. W. E. Blaisdell, E. Rochester, N. H.

BURDICK'S Buff Rocks, good size and color. Eggs, \$2 per 13. P. W. Noyes, Mystic, Conn.

C. S. CULLUM, Meadville, Pa., breeds Pekin Ducks, White Cochins, S. S. Hamburgs, S. C. White Leghorns, B. P. Rocks, and Bronze Turkeys. Fowls for sale, and eggs in season.

DO YOU WANT winners? Will sell a few sit's from best pen headed by cock size of 3 and 4 Boston cockerels, also winners at N. Y., Can., and other shows, at \$5 per sit.; other eggs \$2 per 13. F. A. Quinby, East Rochester, N. H.

HOUDANS and White Wyandottes, prize winners at Boston, 1897-'98 and '99, and New York, 1898. Large vigorous strains. Stock and eggs for sale. W. A. Rogers, Wilmington, Mass.

HOUDANS, No stock. Eggs in season. A. W. Tyler, 79 Andover St., Peabody, Mass.

HURLBERT'S Buff Leghorns are large size and deep buff color. Eggs, \$1 per 13. I guarantee 10 chicks from each sitting. Geo. A. Hurlbert, Cuyler, N. Y.

IF YOU are looking for birds that combine show qualities and utility, try my S. C. W. Leghorns. They have won their share of prizes at the leading shows for years. At Boston, '99, on 2 entries won 2d hen, 2d cockerel. Eggs, \$1.50 sit.; \$2.25 2 sit.; \$3 3 sit.; \$8 per 100. C. H. Annable, Danvers, Mass.

INCUBATOR eggs from fairly good stock of Buff Wyand., Buff and Barred Plym. Rocks, Buff and White Leg's and R. I. Reds, \$3 per 100; \$5 for 200. Rowland G. Bulinton, Box 677, Fall River, Mass.

JODREY'S SILVER WYAN. won more prizes in New York and Boston, '99, than any other exhibitor—18 prizes on 16 entries. In 3 years, including shows, 112 Silvers exhibited, every bird won. Experts call my birds the best faced birds in the U. S. If you want the best, give me a call. Circular free. Eggs \$3 per 13. John C. Jodrey, Box 116, Danvers, Mass.

KNIGHT'S R. C. B. Leghorns won 1st pullet, 4th cock 1 at Boston; 1st cock 1, 1st and 3d pullets, 1st pen at Amesbury; 1st, 2d, 3d pullets, 1st, 2d, 5th cockerels, 1st and 2d hens at Beverly. Cockerels and pullets. Eggs from best pen, \$2 for 13; incubator, \$5 per 100. Geo. A. Knight, Peabody, Mass.

ROSE and Single Comb Black Minorcas, prize stock. Eggs from Single Combs \$1 per 13; Rose Combs \$1.50 per 13. Geo. A. Hurlbert, Cuyler, N. Y.

Raising Duck Broilers.

Mr. Editor:—Would you kindly tell me about raising duck broilers? I have a nice location, and a brook of running water; but the thing of it is, I cannot get them out of doors until the middle of April, so that if they did well at ten weeks they would be ready to sell about the middle of July. I would probably market them in Boston. Now if I bought three ducks and a drake, how many ducklings could I hatch? Will you please tell me the average price per pound the first of July? W. A. R.

Newburyport, Mass.

You do not need a running brook for duck broilers. In fact, they will be better broilers if raised in comparative confinement, given only so much yard range as promotes good digestion. Exercising in the brook would be an excellent thing for the old birds, and would probably promote fertility and hatchability of the eggs.

Ducks usually begin to lay in February, and it is the earliest ducks that fetch the best prices. You should begin hatching as soon as the eggs are fairly fertile. If you have read the accounts of visits to duck farms, you will see that experienced duck men are already hatching in January.

Ducks average about one hundred and fifty eggs each in a season. Three ducks should give you four hundred eggs. If you incubate all of these, you ought to hatch two hundred and fifty, and raise two hundred; that is, the per cent of loss is small, usually about ten per cent.

The price the first of July is usually quite low; last season was down to about twelve cents, so that it is impossible to estimate the average. In previous years fifteen cents has been about the bottom figure; what it will be this year, we do not know.

On a Five Acre Farm.

Mr. Editor:—I am thinking of buying a lot of land comprising about five acres. How many hens will that quarter in the most approved way? I intend to raise poultry for eggs and for market, and after getting on somewhat I shall want to raise broilers and ducks.

I have only a meagre experience in caring for poultry. Would you say I was safe in taking hold of the hundred or so hens at present on the place?

How many hens can one man take care of, counting the hatching season as the busiest and therefore criterion of the business? J. B.

Wakefield, Mass.

We answered a somewhat similar question on page 86, February 15th number, but this question covered a different phase of the business. You ask how many hens one man can take care of, and hatch and raise the chickens to replace the laying stock each year. If he has got sand, five hundred; if they are housed and yarded as per scratching shed house plan in June 15th, '98 F.-P. Houses and yards for five hundred, as per those plans, would take up a little more than an acre of the land, leaving nearly four acres for the growing chicks to run over, for a garden and patch of potatoes, and half an acre of cabbages. Of course the garden, potato, and cabbage patches should be wire fenced off to keep the chickens out.

We would advise anyone keeping five hundred hens upon these plans to keep over about one hundred of his best year olds, selecting those which moulted earliest and had been the best layers, and using them to breed from. That would give four hundred pullets for winter layers. To get these he would want to hatch probably fifteen hundred chickens, which would be reduced by deaths and killing for market, so that he would have in September, say five hundred pullets; weed out the one hundred poorest; kill them and sell to market, and the other four hundred would take the place of the four hundred year old hens sold to market.

In carrying out this plan it would be wiser to have a boy five or six months in spring and summer, to help about the feeding and watering hens and chicks, and the necessary work upon the garden, potato, and cabbage patches. Although a man could do all the work himself for that number by hustling early and late, he could not stand still and let the grass grow under his feet, and care for that number. One consideration which moves us to advise the boy in spring and summer, is that the work can be somewhat better done, and a little better care taken for cleanliness and comfort of the stock; and that better care means better health of stock, better returns from the stock.

Following these plans as outlined, and caring for the stock as advised in F.-P., you can

WHITE Wyandottes exclusively. Early prolific laying strain, dark brown eggs, bred for practical purposes. Eggs 13, \$1; incubator eggs, \$4 per 100. Stock in season. P. D. White, No. Attleboro, Mass.

WHITE Wyandottes, prolific layers of large brown eggs. W. E. Mack, Woodstock, Vt.

WHITE WYAN. Large dark egg laying strain. W. E. Smith, So. Natick, Mass.

WHITE WYANDOTTES, strong, vigorous, prolific laying farm raised stock. Eggs from 10 choice pens \$1 per 13; \$3 per 50; \$5 per 100. White P. Rock eggs same price. A few 9 lb. cockerels \$3 each. Geo. A. Hurlbert, Cuyler, N. Y.

WH. WYANDOTTES exclusively, farm raised brown egg strain, have unlimited range, and are first class in every respect. At Woodstock, Vt., show, won 1st on brown eggs; 2d on hen; special on cockerel; pullets scored 94 to 96 by Lambert. Eggs, \$2 per 13; \$5 per 45. Circular for postal. Victor D. Fraser, Woodstock, Vt.

W. WYAN. Eggs \$1 per 13; \$6 per 100. The best of layers. W. F. Stroud, Merchantville, N. J.

WHITE WYANDOTTES. Eggs from the same pens I breed from myself. At last Boston show won first on pullet, second on cockerel, fifth hen. Eastern White Wyandotte special for five best pullets. Besides winning in the large eastern shows during the past ten years, the Promoter strain has won in New York the past season. C. F. A. Smith, Waltham, Mass.

"DON'T SPOIL THE CHILD"

Of a good incubator by trying to raise it in a poor brooder when you can buy first class ones at \$5 and upwards; also all kinds of poultry supplies at **BRECK'S**, No. Market St., Boston.

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WHITE COCHIN, \$3 a pair. Eggs, \$1.50 a sitting. Wm. Hahman, Box 3, Altoona, Pa.

WHITE COCHIN. A pen of grand little birds, scored by Bridge, 93 to 95 points. Eggs, \$1.50 per 13. Pearl Templein, Callia, Ohio.

BELGIAN HARES.

"LITTLE RHODY" strain of Belgian Hares, fine youngsters from prize winners going fast; speak quick or you lose 'em; 50 Buff Leg. pullets for sale. Eggs from Buff Leg. and R. I. Reds, \$1 per 13; \$3 per 100. W. C. Eaton, Auburn, R. I.

BRAHMAS.

CHOICE Lt. Brah., Feich and Rollins. Eggs \$1, 13; 6 sit's, \$5. M. Herman Kent, Marshfield, Mass.

AMMOTH LT. BRAH'S exclusively. Eggs for hatching the year round 15-21; 50-53; 100-55. Andrew M. Gallagher, Box 317, Norristown, Pa.

EATON BROS. Poultry Farm, Searsport, Me. Light weight Lt. Brahmas. Originated and bred by us 13 years for eggs and early maturity. Have short legs, chunky bodies, are great layers. Eggs, \$1 per 13. Eaton Bros., Park, Me.

LT. BRAHMAS. Large, vigorous farm bred. Eggs \$1 per sit.; \$5 per 100. Liberal discount on larger orders. Geo. Howard, Easton, Mass.

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S. C. B. LEGHORNS, Buff P. Rocks; great show record; fine specimens of both varieties; prices right; free circular; old and tried reliable breeder. Geo. H. Gallinger, Fabius, N. Y.

90 Var. poultry, eggs, pigeons and German Nat'l Col. 60 page book, 10c. J. A. Bergey, Telford, Pa.

BLACK Langshans (Dr. Robinson's); W. Wyandottes (Mack's). Good birds, \$2. Eggs \$1 per 13; \$2 per 30. Henry Mansfield, Rockland, Mass.

WESTFIELD Poultry Yards, Best poultry, pigeons, hares, for the least money; 4c. for catalogue. Vernfield, Pa.

1776 Farm, Warner, N. H. Br. egg prolific laying standard W. Wy., Bar. P. Rocks, Lt. Brah., C. I. Games. Large farm raised stock \$1 to \$3. Eggs 13, \$1.25; 30, \$2; 48, \$3; 96, \$5.

25 YEARS breeding S. W. Leg., B. P. Rocks, great show record. Cir. G. A. Geyer, Florin, Pa.

SHOOK BROS., Spring Mills, Pa., breed Bronze and Wild turkeys, Wh. Chinese geese, Pekin and Roney ducks, and leading varieties of poultry.

BARRED Plymouth Rocks and Buff Cochins; 29 prizes at Framingham, Milford, Beverly, and Lynn. Eggs \$2 per 13. Stock for sale. Trowbridge & Estabrook, Newton Upper Falls, Mass.

PEKIN ducks, R. C. B. Legs, and B. P. Rocks. Cock's and eggs. V. Chase & Son, Reading, Mass.

CHARCOAL.

GRANULATED charcoal, \$8 per barrel of 100 lbs. freight pd. Edgar L. Fenlon, Bradford, Pa.

CLOVER HAY.

CLOVER cut fine, \$1.25 per 100 lbs. all long stems sifted out. Circ. Stevens & Co., Wilson, N. Y.

COCHINS.

BUFF Cochins, young stock for sale; eggs \$1 per 13. C. J. L. Ware, So. Keene, N. H.

PARTRIDGE Cochins are not in it with my R. I. Reds. Geo. H. Adams, Chatham, Mass.

DUCKS.

CHOICE P. Ducks cheap, as we have kept over more breeders than we can use; we will sell 150 excel. ones at \$1 each. Write at once. Chesapeake Poultry Farm, Chase, Md., Mrs. Geo. Brown, prop.; L. Dolan, manager.

make five hundred head of fowls pay you \$1200 to \$1500 a year over and above the cost of the food they will eat. You cannot get this income by slips-bod methods, such as leaving houses uncleaned, letting the lice get a good grip, feeding cheap food, neglecting clean fresh water three times a day in summer, and warmed fresh water twice a day in winter, etc. It will pay you better to take good care of two hundred head of fowls than slips-bod go-as-you-please care of three times as many.

We visited some market poultry farms last month, the owners of which only claimed \$1 or a little better profit per head per year. They would be much wiser to make the same amount of money with half the stock, and, indeed, they would make more, because they would save half the food; by and large, fifty per cent of the food and labor is wasted on each one of these farms. We saw pullets that had not reached laying maturity the last of January. Now that is all dead wood. How much wiser to have killed off those immature pullets, and sent them to market in September or October; there would be the income from the pullets sold, the saving of the food they have eaten in the past four or five months; and, in addition, those that were laying would have had more elbow room and a better chance. This is a large subject for this place, and needs more space and more careful treatment than we can give it here.

Crossing Questions.

Mr. Editor:—I, like many other beginners in the chicken business, would like to try my hand at crossing. Which do you think would give the best results, a Houdan cockerel on White Leghorn hens, or same cockerel on grade Plymouth Rock hens? What would be the color of Houdan-Leghorn cross? Would they show any crest?

I want something that will produce plenty of eggs, and be hardy enough for our climate. Houdans might do, but I find that their crests collect about all the moisture there is going, and dirt also, which gives them a very bad appearance. I have been told that some of the English breeders use the Houdan-Leghorn cross, and speak highly of the result.

Mayville, Wis.

F. F.

We have never had experience with either of these crosses, and from the fact that the Houdan is a white skinned variety, would think it a somewhat undesirable cross. Then, too, the Houdan crest would crop up to a considerable extent, and that would be a disadvantage. Of the two named, we would say the Houdan-Leghorn cross would make better layers. The Houdan-P. Rock cross would make good layers and a better market bird.

We know of some poultrymen who cross Light Brahma male on White Leghorn with most excellent results in both eggs and meat. We have found the White Wyandotte-Light Brahma cross one of the best that we have ever used.

How Long Will Eggs Come Fertile After Separating the Male from the Hen?

Mr. Editor:—1st. Some of my hens are unable to walk, or stand. I cannot tell whether the lameness is in their legs or back, but am inclined to think the latter. Their coop is warm. They have been in the pen with a Brahma cock, and are medium sized hens. They were laying when they became lame, and even after. Are not fat. Can you tell me the cause and cure? Some of them are better at present writing—able to stand.

2d. I have a flock of Brahmas running together—both males and females, of two different strains. I wish to mate the males of one strain with females of the other, and vice versa. How long after being separated before I will be sure of the eggs being fertilized by the desired males?

3d. How long will the eggs of a hen remain fertile after removing her from the male? E. J. B.

Pabelo, Pa.

1st. The cock is probably too heavy, for the hens, and his attentions has lamed them. Remove the male bird, and replace him with a lighter weight one.

2d. It will be comparatively safe to use the eggs after the birds have been separated ten days.

3d. We do not know. Much depends on the condition of the hen, the virility of the male, and whether or not the hen was laying when with the male. Some writers claim that the eggs will not be found to come fertile after ten days following separation from the male. However, this yet remains to be proved, and we know of one case where eggs came fertile one month after death of the only male bird on the premises—but this may be the exception which proves the rule. We would like to hear from our readers on this subject.

WHITE ROCKS

That are white and stay white. No brassy backs or big combs. They have won the leading prizes at the New York shows for several years. At Washington, D. C., in a strong class, they won 1st pen, 1st and 3d cocks, 1st and 2d hens, 1st and 3d pullets. Two farms devoted to White Rocks, and there are none better. Ad. opposite title page.

A. C. HAWKINS, Lancaster, Mass.

DUCKS.

MAMMOTH deep keeled first prize Pekins. Second to none. Eggs, \$1.50 per doz.; \$6 per 100. Book orders early. H. G. Worth, Nantucket, Mass.

PEKIN, Cayuga and Rotten Ducks, large size, standard color. Eggs from prize matings, \$1 per 10. Arthur H. Sagedorff, Spencer, Mass.

LARGE solid shelled fertile eggs from strong healthy Pekin ducks (Rankin, Weber, and Pollard strains) that have ample range and pure spring water to exercise in. \$2 per 15; \$6 per 100. Satisfaction guar. Oxford, Poultry Farm, Oxford, Pa.

DOMINIQUES.

LARGE, vigorous prize winning strain. Eggs \$2 per sitting. W. H. Congdon, Oak Lawn, R. I.

DOMINIQUES bred for eggs averaged 178 eggs each in '98. Winners at Johnstown and Lenox. Eggs \$1.50 per 13; circular free. C. N. Shaw & Son, Swift River, Mass.

EGGS.

50 C. per doz.; \$3.50 per 100. Wyckoff strain White Leg. eggs. Cir. free. S. J. Bishop, Cheshire, Ct.

WHITE Wy., extra dark egg str., bred for eggs, \$1 per sit. Wm. C. Raymond, Bridgewater, Vt.

EGGS that will hatch, best strains White Wyandottes, Single Comb White Leghorns, \$1.50; 100, \$5. W. E. Shoemaker, Laceyville, Pa.

MILLVIEW Poultry Farm, White P. Rocks, Barred P. Rocks, White Wyandottes, Silver Wyandottes, White Leghorns, Black Minorcas, pure bred, good layers. Eggs \$1 per 13; \$5 per 100. W. H. Frey, Jr., Box 55, Milltown, N. J.

BUCKS COUNTY eggs for hatching, \$1, \$1.50, \$5. A. R. Buckman, Bolton, Mass.

W. AND B. Rocks, finest str's. Eggs \$1.50 for 15. Peach Grove Poultry Yards, Hiram, N. Y.

FOR INCUBATORS. Wh. Wyandottes exclusively, 200 laying hens, brown egg, above standard weight; no fancy; bread winners. \$4 per 100. Circular free. J. A. DeMar, Silver Lake, Mass.

LINDEN LAWN Farming Co., Olney, Illinois, breeders of Wy., Wh. Leg., Pekin ducks, Bronze turkeys. Orders booked for eggs from choice matings.

ONTARIO Farm. Eggs, \$1 sitting from W. Wyan., W. L. Games, W. Leghorns and W. China geese. Prize winners. Circular. Geo. Hyde, Appleton, N. Y.

WYANDOTTES, Sil., Gol., Bl., Wh.; eggs, 15, \$1.50; 40, \$3. (Buffs, 15, \$2.) for incub., 100, \$4, from selected heavy layers of leading strains, Hawkins, Hunter, Tarbox, Mattison, Keller. In December got 3450 eggs; in January 3785. Cockerels, \$2 to \$4. S. B. Patton, Box 128, New Castle, Pa.

EGGS from B. P. Rocks, W. Wyandottes, W. Wonders, S. C. B. Legh., and S. C. B. Minorcas, \$1.25, 15. John W. Day, 15 Wheeler St., Gloucester, Mass.

WHITE P. Rocks, Buff Wyandottes, winners at Gloucester, '98, first cockerel, first pullet. Eggs from same pens I use myself, \$1 per 13; \$5 per 100. Stock for sale. John D. Bowen, 208 Washington St., Gloucester, Mass.

EGGS for hatching from my New York and Brockton winners of S. C. Brown Leghorns, White Plymouth Rocks, and White Wyandottes, \$2 per 13; \$3 per 26. E. F. Murphy, E. Whitman, Mass.

EGGS for hatching, Buff, S. C. Brown, S. C. White Leghorns; White, Golden Laced Wyandottes; Light Brahmas; Bar. P. Rocks; Pekin ducks. Stock farm raised; sat. guar. Orders booked for delivery. Thos. Peer, Fairfield Poultry Farm, Fairfield, N. J.

MY R. I. REDS and Buff Leghorns are bred for prolific winter layers. Eggs \$1 per 13. Wm. Thompson, Pine View Poultry Yards, Beverly, Mass.

BARRED P. Rocks, White Wyandottes, bred for business. Eggs \$1 per 13; \$5 per 100. Abe Ely, Maple Tree Poultry Farm, Wyckoff, N. J.

EGGS for hatching from choice pure white low combs P. Rocks etc. 1 sit., \$1.25; 2 sit., \$2. W. H. Wright, 528 Washington St., Hudson, N. Y.

R. S. COOK, dealer in thoroughbred poultry and eggs, B. Minorcas, premium stock; W. Wyan. Mack and Dunston str. W. P. Rocks headed by cock 1 that scored 921-2; B. P. Rocks. My early prolific layers. Eggs from above \$1.50 per 15. R. S. Cook, Belvidere Poultry Yards, W. Townsend, Mass.

WHITE Wyan. and S. C. Brown Leghorns bred for utility as well as beauty, and combine both qualities to a high degree. The strain you want for eggs or prizes. Eggs 15, \$1.50; 35, \$3. Circular free. F. W. Calvin, Washingtonville, O.

WHITE Wyandottes, \$1 per 13. Guaranteed the best. G. L. Hoyt, Waltham, Mass.

EGGS for hatching, W. Wyan. Hawkins, Hunter str., \$1.50 per 15. W. and B. P. Rocks, Hawkins str., \$1 for 15; \$4 per 100. B. F. Lunt, Kennebunk, Me.

EGGS \$1 per 15. Buff, Barred and W. Rocks; Red Caps; Golden Polish, Houdans, B. Minorcas, S. and W. Wyandottes, L. Brahmas, Buff and P. Cochins, S. and R. C. W. Buff and Brown Leghorns, P. ducks. P. E. Twining, Kipton, O.

EGGS for hatching, S. C. Bk. Minor., B'd P. Rocks, and Wh. Wyand., \$2 for 13; \$3 for 26. W. L. Lane, 86 Mt. Vernon St., Dover, N. H.

EGGS from Buff, White and Barred Rocks, Buff and White Wyandottes, Single Comb Brown and R. C. White Leghorns, 15 eggs \$2; 30 for \$3.50. Circular. Gardner & Ryckman, Brocton, N. Y.

W. H. WYAN., W. P. Rocks, and R. I. Reds, brown eggs from prolific winter layers at \$1 per 15. C. A. Sanborn, 42 Fairmont St., Maiden, Mass.

EGGS for hatching W. Wyandotte, Hunter strain; Wh. Leghorns, Wyckoff strain. \$2 per 13. Mrs. M. L. Winans, W. Cossack, N. Y.

BUFF Wyan., Lt. Brahmas, vigorous, farm raised from noted strains. Eggs, 15, \$1.50; 50, \$4. L. J. Brundage, Starkey, N. Y.

BUFF ROCK eggs from prize winning stock, prolific layers of large brown eggs, \$1 per 13. Mrs. M. E. George, Main St., No. Groveland, Mass.

P. D. WHITE, North Attleboro, Mass., has one of the best dark brown egg strains of standard White Wyandottes in the country. Eggs, \$1 per 13.

HEATH'S White Wonders, Light Brahmas and Black Langshans are winners wherever shown. Eggs, \$2 per 15. H. W. Heath, Hiram, N. H.

EGGS FOR HATCHING, Light Brahmas, Buff and Black Cochins, White, Silver, Golden and Buff Wyandottes, R. I. Reds, Buff P. Rocks, White, Brown and Buff Leghorns, B. Minorcas, Cornish I. Game, Eggs, \$1 and \$1.50 a sitting. M. B. turkeys, Toulouse geese, Minseovy ducks, Guinea fowls. Eggs in season. Also a few Cornish and White I. Game cockerels, \$1 and \$2 apiece. Preston Wilkes, Beech Hill Poultry Farm, Rockland, Mass.

As to Fancy Foods.

Mr. Editor:— The article, "From Farm to Market," in Feb. 15th F.-P. written by Mr. Fred Grundy, and credited to the *American Poultry Journal*, is directly to the point and without much side talk, and his remarks about feeding are correct.

I have a pen of twelve mixed pullets that have never been fed fancy food, unless wheat, oats and corn mash can be called so, and yet the egg yield for the month of January amounted to 227 eggs, value \$2.86. Our average prices for eggs in winter are 18 cents per dozen; summer, 10 cents per dozen. Do you think at these prices the Indiana farmer can afford fancy foods and implements? G. K. Fort Wayne, Ind.

Do you acense F.-P. of recommending fancy foods and implements? If so, what do you define as fancy foods and implements?

The editor of this paper keeps poultry for profit, and all of his writings in this paper are founded upon poultry for profit. He feeds no fancy foods, has no fancy implements, and his buildings are plain and inexpensive, as economical to build and do the work in as it is possible to make, reasonable durability being considered. All of the work of the poultry department of our farm is done without laces and frills, and we keep poultry for profit, precisely as we recommend other farmers to keep poultry for profit.

Our principal foods are wheat, barley, oats and corn, with mash once a day five days in a week, as described in the article, "Feeding Fowls for Eggs," November 15th, '97, F.-P., and it pays us to feed in that manner. We do not, however, call that fancy feeding. It pays us to feed meat meal as a substitute for worms, insects, etc., which the fowls can get in summer on free range, and it pays us to feed cabbage and clover for green food. If these are fancy foods, we know it pays us to feed them, and we believe, by and large, that it would pay western farmers to feed them. You, in the west, buy your grain at about one-half of what it costs us; hence you can produce eggs at a profit, even at the prices you sell them at. For example, your January eggs were of a value of \$2.86, and it ought not to cost you above 75 cents to feed twelve pullets a month. You can easily see a profit there.

Substitute for Cabbage.

Mr. Editor:— My cabbage supply is nearly exhausted. Do you think water cress as greens for laying hens would be in any way injurious? I have a lot on my place, and had thought of alternating it with cabbage, to make the latter hold out longer. I have tried if they will eat it, and they do; but I do not want to feed it if there is any danger—and I know of no one who has given it a test. W. E. A. Belvidere, N. J.

We have never tried it, but see no reason why it would not be an excellent green food. It is aromatic or spiey in taste, and if fed in large quantities might make the eggs taste; but that could only be told by experiment. We should not hesitate to try it as a substitute for cabbage, alternating with cabbage, and watch results.

Cut clover steamed can be fed as a separate ration, and is an excellent substitute for cabbage, and would be that if fed in the mash.

Ventilators in a Brooder House.

Mr. Editor:— Do you consider it wise to have ventilators in a brooder house? I have a house 64x13, with brooder pipe system. The walls of the house are weather boarding outside lined with paper, and hemlock boarded inside, and no ventilation except what comes through the doors, and where the chickens go in and out; and yet the walls and roof are very damp; at the end furthest from the heater even droppings on the floor. The carpenter today informed me it could not be from the outside, but must be due to a dampness within, and no ventilation. Do you think this could possibly be? Do you think an incubator house could be built above ground, adjoining brooder house and be successful lined with sawdust? What makes chicks stick to the shell? S. J. C. Smithburg, Md.

The dampness in the house is undoubtedly due to want of ventilation, or airing out. It does not need that you have ventilators to change the air, though they might be a help if arranged so that you could control them at all times, and they would help to regulate the temperature as well. You can air out the house by opening the doors and windows during the middle of the day, when the sun is shining, as we have frequently recommended in this paper, and airing out the house would remove the dampness.

Yes, a brooder house can be successfully built above ground; but we would not pack it with sawdust. Would rather have a simple dead air space between inner and outer walls. Many incubator rooms are above ground.

RHODE ISLAND REDS

HAVE NOT BEEN WEAKENED BY BEING CONTINUALLY OVERSHOWN, sent to numerous exhibitions every season. Another reason why they just suit the farmer and practical poultry raiser. SAMUEL CUSHMAN'S illustrated and descriptive circular free.

HOUDAN eggs, \$1.50; \$6, 45. Hl. chr. Birds. F. W. McKenzie, Concord, Mich.

LARGE dark brown eggs, \$1 per sitting from good laying pure White P. Rocks. L. M. Treat, Vinahaven, Me.

BUFF Leghorns. Eggs from high scorers, \$1 per 15; prize Partridge Cochins, \$2 per 15. Warren B. Collins, Box 191, Freeport, Me.

BARRED P. Rock and W. Wyandotte eggs, \$1 for 13. H. L. Haynes, W. Acton, Mass.

BUFF and White Fly. Rocks. Eggs from best pens, \$1.25 per 15. E. F. Ely, Brooklyn, Pa.

EGGS from stay White P. Rocks, extra large, yellow legs, \$1 per 13; \$3 per 100. Geese eggs from exhibition birds. Mrs. A. T. Chamberlain, Westboro, Mass.

WHITE and Black Minorcas. Eggs, \$1 per 15. Pure bred stock. Sarah Shaw, Whitehop, N. Y.

W. AND BAR'D P. Rocks, fine stock, heavy layers. Eggs, \$1 for 13; \$5 per 100. C. M. Hubbard, Box 111, New Brunswick, N. J.

BUFF LEGS, and Buff P. R. cheap. Eggs from winter laying stock, off on fancy points, for market or laying, 75c. for 13; \$1 per 100. From the exhibition stock, \$2 per 13; \$5.50 per 26. 300-egg Plymouth incubator, used one season, \$25, cost \$65. J. H. Hellerman, Doylestown, Pa.

EGGS for hatching from Buff P. Rocks that won at Rochester and Elmira shows; scored 91 to 94 points. Eggs \$2 per 13. Buff and White Wyandottes, Barred P. Rocks, Buff and S. C. B. Leghorns, bred from America's greatest prize winners. Eggs \$1 per 15; \$1.75 for 30; \$3 for 60. Satisfaction guaranteed. W. T. Drake, Reading Center, N. Y.

EGGS, W. P. R., Hunter str., \$1 per 13. B. P. R., Rankin and Hunter str., \$1 per 15. R. I. Reds, \$1 per 13. White and Red cockerels \$2. J. A. Pelletti, with Channing Hospital Co., Providence, R. I.

EGGS \$1 per 13; \$3 per 48. Catalogue. Brah. Wy., Rks, Leg., Coch. E. A. Standish, Andover, Conn.

CHOICE eggs for hatching, White Holland turkeys, Embden geese, White geese, W. P. Rocks. Mrs. Mary J. Heath, Bookwalter, Ohio.

EGGS FOR HATCHING, from White Wyandottes that are great layers of large brown eggs. B. P. Rocks, S. C. Brown Leghorns, and Wyckoff's strain of S. C. White Leghorns, \$1 per 13. W. H. Rawson, Orange, Mass.

BUFF Cochins and Buff Cochins Bantams. Eggs from 1st prize pen \$1 per 13. Also eggs from prize pens of White Wyand., Golden Wyand., and B. P. Rocks, \$1 per 13. L. G. Butman, Rockport, Mass.

HARWOOD'S Buff Wyandottes are unexcelled, grand Blue Andals, eggs, above varieties \$2 for 15. Blue Wyand. Dr. Harwood, Chasm Falls, N. Y.

EGGS, Fly. Rocks, Leg., Brahmas, Min., R. Caps and P. Ducks. C. B. Huff, Delaware, N. J.

FOR SALE. Eggs for hatching from thoroughbred Single Comb White and Brown Leghorns and White Plymouth Rocks. Price \$1 per 15 of each kind. W. R. Rounds, New Hope, Cay. Co., N. Y.

EGGS for hatching. I will sell choice White and Barred Plymouth Rock eggs, 15 for 75c; 100 for \$3. Willow Creek Poultry Farm, Aaron Veeder, prop., Brookview, N. Y.

CHOICE Golden Wyan., Buff and Barred P. Rock eggs, from large farm raised stock, \$1.50 per 15; \$2.50 per 30; \$5 per 75; \$6 per 100, in safety carriers. A few trios of Golden for sale. Mrs. Mary E. Morse, box 71, Epping, N. H.

SEE HERE—eggs at half price, from the very best stock only. R. C. B. Min. and B. P. Rocks. Come and see them. Eggs \$1 per 13; or \$1.75 per 26. Pine Grove Poultry Yards, Pine Grove, Pa.

S. C. B. Leghorns and Black Langshaus; winners at leading American shows, including Boston, '99. Eggs for hatching a specialty, \$2 per sit.; 3 sit. for \$5. E. P. Lovett, P. O. Box 329, Ware, Mass.

W. P. Rock eggs from choice stock. 15 eggs \$1; 100 \$4. Wm. F. Hinds, De Ruyter, N. Y.

BARRED Plymouth Rocks. Stock direct from Bradley Bros.; no other strain kept. Blue barred, great layers, strong fertility. White Plymouth Rocks, pure white; no Leghorns here, but true P. R. size and shape. I guarantee satisfaction. Eggs \$1. James H. Clark, Agawam, Mass.

EGG circular of my prize winning Buff and Barred Rocks and G. S. Bantams free. M. F. Delano, Falmouth, Mass.

BUFF Leghorns, best of stock, and White Wyan., 4 grand pens. F. C. Bailey, Franklin Falls, N. H.

EGGS for hatching. Buff and White Wyandottes, best strain prize winners. Write for prices. L. A. Way, Claremont, N. H.

EGGS—Wh. Wyan., Hawkins str. Fly. R. Orreoco str., free range, vlg. stock, Brown eggs \$1 sit. L. Richardson, 55 Pleasant St., Winthrop, Mass.

COMBINATION Poultry Yards. Rare bargains. Eggs for hatching, Plym. Rocks, and Leghorns, best prize winning strains combined. See ad. Mar. 15. Circular free. Clinton A. Faine, Brandon, Vt.

LT. BRAHMA and cross between Light Brahma and Brown Leghorns, eggs for hatching, \$3 per 100. White Wyandotte eggs, \$4 per 100. J. W. Goodale, Danvers Center, Mass.

WHITE P. ROCKS, pure stock, good layers, large extra dark brown eggs, \$1 per sitting. L. M. Treat, Vinahaven, Me.

WHITE Plymouth Rocks, Hawkins strain, large, pure white birds. Eggs from my best pens, headed by high scoring males \$1 per 15. Alfred C. Hill, Belmont, Mass.

EGGS from farm raised up to date Buff Wyan., R. G. Bullaton str. Buff Brahmas, Courtoy str. \$1.50 per 13. Arthur Walte, Rockville, Mass.

"UTILITY Trio" eggs after Apr. 1st, \$2. Mrs. Blsbee, 75 Clarkson St., Dorchester, Mass.

EGGS from S. and R. C. B. Leg., Bar, and W. P. R. and Pekin Ducks, \$1.50 sit., also W. P. R. cock 1s and R. C. B. Leghorns, \$1.50; special rate for incubators. N. Porter Brown, Westboro, Mass.

EGGS from prize win. B. Min. \$2 per 13. R. C. B. Leg. \$1 per 13. I. C. Greene, Box 311, Fitchburg, Mass.

IMPORTED Buff Orpingtons, Wyan., P. Rocks, Brah., Cochins, Leg., Min., Bantams, Lang., Andalusians, Ham., ducks, hares. Eggs reasonable prices; eat. free. Davis Bros., Station P., Washington, N. J.

R. I. REDS, farm bred, vigorous, great layers. First and special premiums Barnstable, '98. Eggs \$2 for 15; \$3 for 30. Fine Imperial Pekin duck eggs, 5c. each. Geo. H. Adams, Chatham, Mass.

1813 EGGS from 37 White Wyandottes in 70 days, Jan. 1st to March 11th. A 70 per cent yield in winter. Eggs, selected pen \$1 per 13; \$2.50 per 40. E. L. Prickett, Hazardville, Ct.

THOMPSON'S 200 egg strain pure bred White Wyandottes, also W. P. Rocks; 300 fine birds mated for business as well as for fancy. Eggs for sale. F. B. Thompson, Peterboro, N. H.

FINE B. P. Rock eggs for hatching, 75c. per sitting. Elton H. Beals, Bridgewater, Mass.

B. ANDALUSIAN, Bl. Langshan, and Buff P. R. eggs for hatching. A. C. Brooks, Berwick, Me.

You will see one described in the account of a visit to Plainfield Poultry Farm, in March 1st F.-P.

The incubator house at Capt. Casey's Aratoma Farm, Katonah, N. Y., is wholly above ground, as is also the one at Fishers Island Farm, and many others which have been described in these pages.

Lack of moisture or ventilation of the incubator causes chicks to stick to the shell.

Keeping Eggs for Hatching.

Mr. Editor:— How long should eggs intended for hatching be kept? Should they be turned once a day, or alternate days—or not at all? Mrs. B. Peeble, Pa.

Eggs intended for hatching should not be kept longer than four weeks; the fresher they are when set the better.

Do not handle eggs you intend to use for hatching any more than you can help. The less handling they get the better. Keep them in pasteboard fillers, or in a box of bran. Stand them large end up, and do not handle them until you want to set them. The reason for keeping the eggs in a box rather than in the open, is that they are protected against the evaporating effect of currents of air.

Tar Smell and Hatching Eggs.

Mr. Editor:— Before placing my incubator I put tarred paper on one side of the wall of the room, and the tar smell is very prominent. I have been told that tar would spoil the hatching properties of the eggs. Is that so? C. A. B. Taunton, Mass.

We do not know, but think it would. At any rate, we would not care to risk it. Tar odor is very penetrating, and odors of all kinds are injurious to hatching eggs. When you stop to think that fresh pure air should be accessible to the eggs all through the period of incubation, you can see the reason why odor of coal tar, and all other odors should be guarded against. We would remove the tarred paper at once, and substitute a good resin size l sheathing paper.

Have the air in your hatching room as pure and sweet as possible.

SEED DUE BILL FREE

To get new customers to test my seeds I will mail my handsome catalogue for 1899, lithographed and beautifully illustrated, and a 10c. Due Bill, good for 10c. worth of seeds for trial, absolutely free. It is full of bargains. All the Best Seeds, Potatoes, Plants, Roses, new Fruits, Farm Seeds, Potatoes, etc., at lowest prices. Ten Great Novelties offered without names. I will pay \$50. FOR A NAME for each. Don't buy your stock until you see this new catalogue. Several varieties shown in colors. Great inducements for orders this year. You will be surprised at my bargain offers. Send your address on Postal to-day. Tell your friends to send too. Old customers will receive a copy. F. B. MILLS, Seedman, Box 48, Rose Hill, N. Y.

TEN Conney T. Brah, yearling, 10lb. hens and cock, \$14. Buff Leg. eggs, Shepard, score 92 to 93, \$1.50 for 13. C. M. Smith, Box 320, So. Braintree, Mass.

BARRED Rocks—E. B. Thompson and Bright strain. Finest matings I ever owned. Eggs, \$1.50 per 15; Hunter-Cox str. \$1.25 per 15; incub. eggs \$2 per 100. M. H. Coe, N. Broadway, Franklin Co., O.

EGGS from high class W. Wyandottes and R. C. W. Leghorns, \$1 per 13. \$5 per 100. W. Wyan. and S. C. B. Leghorn cockerels, \$1 up. One two year old W. Holland tom for sale, weight 35 lbs. W. V. Ransom, Hiram, N. Y.

LIGHT Brahma eggs for sitting. From Salsenstein's Hartnest Farm stock. Not from his best strain, but better than any others. Prices accordingly. F. B. Rodman, 112 Shepherd St., Lynn, Mass.

EGGS from beautiful Buff Rocks, at \$2.50 pr. 26, bred from prize winners at the largest shows. Also cockerels and pullets for sale. Also White Wyandotte eggs. Incubator eggs, \$5 per 100. Clinton Elliott, Sag Harbor, N. Y.

EXCHANGE.

FOR SALE or exchange, for good stock of eggs, several pullets and cock 1s of B. R. R. I. Games, All good breed. W. N. House, Haddam Neck, Ct.

FEATHERS.

WANTED. Dried picked hen feathers, highest prices paid, Nashua Pillow Co., Nashua, N. H.

GAMES.

CORNISH Indian Games. Eggs from a grand pen of high scoring heavyweights, only \$2 per 15. Edw. S. Freeman, 72 Church St., New Rochelle, N. Y.

PIT GAMES and eggs, imported breeds (stamp for four page illus. circular. Also 5 finely bred Fox Terrier puppies, 4 months old. Male, \$6; female, \$5. Alexander Moul, York, Pa.

PIT GAME FOWLS and Bull Terrier Dogs. J. P. Colby, Newburyport, Mass.

GEES.

BROWN China and White China Geese. The best layers of the goose family. Eggs from my 1st prize winners at Boston, 20 cents each; \$1 per 6. Arthur H. Sagedorff, Spencer, Mass.

WE MAKE A SPECIALTY of African geese. We have a few that have heavy downy, correct markings, and weigh in active breeding condition, 20 lbs. and geese. Bred 19th's. We have also many others nearly as good, and finest Toulouse and Embden, 160 breeding and market geese of various qualities in all. Can sell eggs for hatching at prices according to quality. No stock now for sale. Send for list. Farm at West Mansfield, Mass. Samuel Cushman, Pawtucket, R. I.

HAMBURGS.

BLACK HAMBURGS, a limited number of eggs at \$3 per 15; from standard high class exhibition and laying stock; won 1st exhibition pen Boston, 1899. Herbert M. Howes, Winchester, Mass.

Duck Trouble.

Mr. Editor:—I am hatching ducks with an incubator, but find that many of them are seized with convulsions, turn over on their backs and die; this takes place mostly when they are from a month to two months old. I feed them a mixture of bran and crushed wheat night and morning, and they have free run on the manure heap thrown out from about fifty horses and mules; they have running water in abundance and everybody says it is an ideal place for ducks.

Can you please tell me what is wrong with them—and is there any remedy? W. A. Howw Holk, Cape Town, S. Africa.

Not being informed on duck questions, we sent this question to Mr. Pollard, and here is his reply:

"It looks to me as if the ducklings might be suffering from overheating in the sun. We find it works just that way here, when they lack shade especially if they get overhot and then fill up on water. They should get enough grit out of the brook. They ought to be fed at least three times a day, four times would be better, and then they would not be in danger of choking or overeating. When a duckling over a month old dies there is some distinct reason for it and the cause ought to be readily found and removed.

I should want a pretty good proportion of the mixture bran, and would add something in the way of chopped green food to lighten up the mixture. Without any more information on the subject, I should think the trouble was lack of shade. A manure pile is a pretty warm place, and unless it is well shaded, it would be too hot stuff for young ducklings."

Inflammation of Oviduct.

Mr. Editor:—I have a Black Minorca pullet that I am having trouble with, and I thought you might be able to help me out. About every third day she lays two soft shelled eggs which are connected by a small pipe or tube about half an inch long, and as large around as the little finger. These eggs are large and well formed and I have always found one broken. She appears a little dumpy, but eats well.

Dorchester, Mass.

W. H. S.

Pullet is out of condition; probably has been overfed, and has inflammation of egg duct. Feed largely on green food, and very little grain. Encourage the bird to exercise in open air. Do not feed stimulating foods or spiced food.

Blood Clot in Egg.

Mr. Editor:—Last week I found an egg with a piece of foreign matter in it that looked like liver about the size of a small marble. I know the egg was fresh. Can you tell me what it was? F. D. C. Manchester, N. H.

It was a blood clot caused by the rupture of some small blood vessel in the egg organs,—probably the result of injury; or the walls of blood vessels may have been weakened by fatty degeneration—one of the evils attendant on excessive feeding.

Blood in Egg.

Mr. Editor:—I am a beginner in the poultry business, and am in trouble. I bought a sitting of White Wyandotte eggs of a breeder in New England in March, 1897. Got nine strong healthy chicks, five cockerels and four pullets. From these I raised twenty chicks last summer. One of the pullets has a single comb, but I kept her because she is a fine layer, and the best brown egg pullet in the lot. On March 5th she laid two eggs, one of them a very small soft shelled one. On breaking it I was surprised to find the contents bloody; there was no yolk, but part of the white had the form of a yolk. Can you give me any light on this matter? This curious egg is the last the pullet laid, as she became and is now broody.

Avoca, Pa.

R. R. W.

It is not possible to say just what caused your pullet to lay such an egg. If she does not continue to lay abnormal eggs we should not worry about her, and should lay it to some slight functional disturbance of the egg organs—possibly caused by eating some improper food, or by injury. If she continues to lay such eggs with any frequency, we should not waste time treating her. Better kill and eat her. Disorders of the egg organs are difficult to treat, and are seldom cured.

Apoplexy.

Mr. Editor:—I keep about a hundred hens, and they have laid well all winter. Will you please tell me why two of my hens dropped dead in the night? They were all right when they went to roost, and I found them dead in the morning. I have another hen that has lost the use of her legs.

North Sterling, Conn.

C. L. L.

You have probably been feeding too heavily. The fowls died of apoplexy. The hen with paralyzed legs is a victim of the same trouble. Better kill her; she cannot be cured. As the

BUY "DIRECT FROM FACTORY," BEST MIXED PAINTS

At Wholesale Prices, Delivered FREE For Houses, Barns, Roofs, all colors, and SAVE Dealers' profits. In use 54 years. Endorsed by Grange & Farmers' Alliance. Low prices will surprise you. Write for Samples. O. W. INGERSOLL, 269 Plymouth St., Brooklyn, N. Y.

HOUDANS.

HOUDAN eggs, \$1 per 13. W. H. Turkey eggs, \$2 per 11. G. A. Hobart, Chittenango, N. Y.

INCUBATORS AND BROODERS.

THE PERFECTED INCUBATOR, cash, installments, or rented. The Perfected Regulator fits any incubator; 4c. in stamps for circular. H. D. Montlon, Taunton, Mass.

PRAIRIE STATE. I have one 300-egg machine almost new, \$25 on board cars, 11 taken at once. Arthur G. Dunston, 223 East Main St., Marlboro, Mass.

VON CULIN incubator cheap, good as new. Alex. H. Clark, Fly Creek, N. Y.

FOR SALE, a Prairie State incubator of 200-egg capacity, as good as new, only used a few times; also Peep-o'-Day brooders, hot water brooders, bone cutter, hens pullets, roosters of choice stock, and everything required to start a poultry business. Sold only because space occupied by poultry yard is needed for manufacturing purposes. Whole outfit will be sold cheap. A specially good opportunity for some one starting a poultry business. Apply to T. E. Houston, 19 Galen St., Watertown, Mass.

4 PEEP-O'-DAY outdoor brooders for \$30, or \$8 each, 2d hand. E. G. Garber, Belleville, Ohio.

JAVAS.

BLACK and Mottled, Boston winners, extra large, great layers. Eggs \$2.50 per sitting. 2 sittings \$4. Circular. W. H. Congdon, Oak Lawn, R. I.

FIELD'S Black Javas won at Boston, Jan., '99. 1st cock 1st hen, 1st cock 1st pul, 1st pen. Circulars. Field & Son, Somers, Conn.

LANGSHANS

BLACK Langshans and S. C. White Leghorns, bred for utility. Eggs from my carefully selected breeding pens of prize winners at \$2 per 13. D. H. Murphy, Box 422, Milton, Mass.

BLACK Langs., early maturing, prolific laying st'k. Gloucester, Jan., '99, C. A. Ballou, judge, 1st on cock 1, hens scoring 90 to 95. 13 eggs \$1.25; \$3 for 39. John Tufts, Rockport, Mass.

BLACK Langshans, Kirby & Smith and Dr. Robinson strains direct, 4th season breeding these noble birds exclusively. Eggs \$1.13; \$2 Geo. C. Jones, Parkview Poultry Yards, 463 Pleasant St., Brookline, Mass.

BLACK Langshans exclusively. Eggs \$1 per 13. J. H. Bormann, Station M., New York, N. Y.

LEGHORNS.

ROSE COMB Brown and White Leghorns that are bred for layers. Eggs \$1 per sitting; 50 for \$8. C. H. Clark, Cohasset, Ct.

EGGS from Single Comb Leghorns, Perseverance strain; have used trap nests for years; no drones in our yards; good vigorous, well marked stock. Eggs \$2 per 13. No stock for sale at present. Write for information. M. J. Hewitt, Ogden, Utah.

WYCKOFF strain great egg producing S. C. W. Leg., \$1 per 13. W. J. Kilts, Milford, N. Y.

BUFF LEGHORNS, Boston, '99, 1st pen; '98, 1st pullet and 3d cock; '97, special best colored pullet. Fitchburg, all prizes three years. A few fine females to spare. Eggs for hatching, \$1.50 per sitting. Satisfaction guaranteed. Whitney Farm, H. A. Whitney, So. Gardner, Mass.

S. C. WHITE, Layers, \$1.50. Eggs, \$1.50. Wm. Hahman, Box 3, Altoona, Pa.

BUFF LEGHORNS. Some bargains in fine young hens for breeding. A few culs for layers, cheap. John H. Robinson, River and Farwell Sts., Waltham, Mass.

ROSE C. B. Leghorns—specialty 13 years. Eggs from prize winners, \$1.00 per 13; \$2.50 per 30. From free range flocks, \$4.50 per 100. J. L. Randolph, Bartlett, O.

GET your money's worth, 15 eggs, \$2, from S. C. Brown Leghorns that can't help but raise prize winners for you. Pullet mating headed by 95 point cock, cost \$25. Cockerel mating headed by 95 point cockerel. Bert P. Gage, Warsaw, N. Y.

BUFF LEGHORNS, Arnold and Buffinton str. Eggs \$1.50 per 13. Also Barred Rocks and White Wyandottes. Circular, Indian River Poultry Farm, Philadelphia, Jefferson Co., N. Y.

S. C. WHITE Leghorn eggs, \$1.50 per sitting, 15 eggs, from prize stock, 1st pen, 1st hen at So. Framingham show, December, '98. John M. Kendall, Framingham, Mass.

BUFF Leghorn eggs from fine stock, \$1.50 per 13; \$2.50 per 30. Ray Nickerson, Turin, N. Y.

S. C. WHITE Leghorns, Knapp-Wyckoff, farm raised, prolific layers of large white eggs, \$1 per sitting. G. E. Chalfant, Hammon, N. J.

S. C. W. Leg. exclusively. Fancy, utility combined. Large fertile eggs \$1-13; for incubator \$4-100. Arthur G. Symonds, West Hopkinton, N. H.

AT Boston my R. C. White Leg. again victorious. Eggs \$1.50 per 13. E. M. Wilson, Spencer, Mass.

S. C. BROWN Leghorns exclusively. Eggs from best laying strain \$2 per 13. Write for particulars to Wm. Lovejoy, Philadelphia, Jeff. Co., N. Y.

MINORCAS.

EXHIBITION and practical purpose birds. Eggs, hens, cockerels and pullets, \$2 and up. R. Story, 187 Arlington Ave., Brooklyn, N. Y.

LARGE white eggs from selected stock of Black Minorcas, Northup strain \$2 per 13; \$3.50 per 26. F. A. Stanard, Truxton, N. Y.

ROSE Comb Black Minorcas. Northup str., won 1st on hen, '99, New York show, in competition with Mr. Northup. Eggs, \$2 and \$3 per sitting. H. W. Bohn, 34 N. 9th St., Reading, Pa.

BLACK MIN. eggs, \$1 per sitting, \$5 per 100. A. R. Savary, E. Wareham, Mass.

THOMPSON'S Minorcas won at Boston, '99, 5 1sts, 1 spec, 22ds, 13d; at New Haven, 1st on cock, cock 1, hen, and 2d on hen and pen, 3 specials. Also bred Buff Rocks. Eggs, \$2 per 13. Catalogue free. C. A. Thompson, Melrose, Conn.

EGGS guaranteed to hatch, regardless of distance, from Rose and Single Comb Black Minorcas that have a worldwide reputation as "best for show and utility." A few good breeders cheap. Large catalogue. Box 76, Geo. H. Northup, Raceville, Wash. Co., N. Y.

WHITE MINORCA eggs, \$1 per 13 from hardy birds. E. L. L. Mansfield, Swampscott, Mass.

S. C. BLACK Minorcas exclusively. For short time, warranted eggs \$1.50 per 13; \$2.50 per 26, with valuable prem. E. C. Cheney, N. Acton, Mass.

BLACK Minorcas, leading strains. Single and Rose Comb, cock 1s \$1 to \$5; S. C. eggs \$1.13; S. C. pullet Comb eggs (Northup) \$2, 13; \$4, 30; S. Comb pullet, \$1. Cir. M. V. Allen & Son, Ovid, N. Y.

BLACK Minorcas, prolific laying strain. Eggs \$1.50 per 13. Write for circular. Indian River Poultry Farm, Philadelphia, Jefferson Co., N. Y.

trouble is caused by the rupture of a blood vessel of the brain, the bird is not unfit for food unless she shows symptoms of other trouble, or has been paralyzed some time.

We have just received the new illustrated catalogue issued by L. R. Oakes, Bloomington, Ind., giving a complete description, with prices of all the best Thermostats, Safety Lamps, Tanks, Boilers, Thermometers, etc., on the market, together with valuable information on the subject of heating and regulating incubators and brooders.

It is a handy little catalogue, and our readers will do well to send for one; even if they do not want anything in his line just now; it is very valuable for future reference.

Mr. M. H. Sauds, Amesbury, Mass., whose ad. appears on page 150, this issue, has been a breeder of Barred Rocks and Brown Leghorns for ten years, during which time he has made a careful study of these two breeds, the result of which can be seen by his winnings at the Amesbury and Haverhill shows this year. His winning Barred Rock cockerel, (score 93½), heads one of his cockerel matings, and his stock, taken as a whole, is as good as the best.

"How to Make Hens Lay."

One of the best egg foods on the market is that of Smith & Romaine's, known as Boiled Beef and Bone. It differs from all other egg producing preparations in that it is made from fresh cattle and sheep's heads, lights and livers, slaughtered at the abattoir on the premises. This fresh material is thoroughly cooked—crushed, dried, ground, mixed and bagged often within twelve hours from time of killing. From years of actual experience we do not hesitate to say that we have found Smith & Romaine's B. B. B. for poultry one of the best egg producers on the market. From a modest beginning of a few bags a month their sales now run up over a million pounds annually. Write them at 109 Murray St., N. Y. city, for their 1899 booklet on "How to Make Hens Lay."

We are pleased to hear that Mr. Frederick B. T. Thompson, Peterboro, N. H., is having a good trade in his White Wyandottes and W. P. Rocks. Mr. Thompson has got his birds up to such a standard that they give him an excellent egg record, and ought to do fine in the hands of purchasers. See his ad. in our classified columns.

Remember that the Bowker's Animal Meal is sold only in yellow bags and yellow packages. The original; richest in protein.

S. C. Black Minorcas, Northup strain, large white eggs. Bred for laying. \$1.50 per 13; \$2.50 for 26. Geo. A. Marks, 227 Proctor Ave., Revere, Mass.

MARSHALL'S Min. won 1st, 2d and special prizes at Amesbury, Beverly, '99. 6 splendid cock 1s cheap. Eggs, \$1.50. C. E. Marshall, Rowley, Mass.

ORPINGTONS.

BUFF Orpington eggs from imported birds \$2.50 per 13. L. C. Beatty, Washington, N. J.

BLACK Rose Comb Orpington eggs for hatching. C. M. Young, Sr., Elizabeth, New Jersey.

BUFF ORPS. Miss Edwards, exporter of winners of firsts and seconds, New York show. Eggs, \$3.00, Coaley Poultry Farm, Dursley, Glos., England.

IMPORTED Buff Orpingtons, Mad. Sq. 1 pen, 3 and 4 pul.; Boston, 1 cock 1, 1 pul.; Mt. Gretna, 1 cock, 1 hen, 1 cock 1, 1 pul. Eggs \$3 per 13. C. E. Vass, Washington, N. J.

PLYMOUTH ROCKS.

BUFF PLYMOUTH ROCKS. Stock for sale. Incubator eggs, \$4 per 100. Circular free. James H. Corwith, Water Mill, N. Y.

20 EGGS \$1; 100 eggs, \$4. Choice cockerels \$1.50 ea. Emanuel Schieber, Brandywine, Ohio.

BARRED P. Rocks, brown egg strain, eggs \$4 per 100. A. A. Simmons, Dighton, Mass.

W. AND BARRED P. Rocks, fine stock, heavy layers. Eggs \$1 for 13; \$5 per 100. C. M. Hubbard, Box 114, New Brunswick, N. J.

BROWN eggs farm raised Barred P. Rocks, \$1 per 13. A. A. Sawyer, Plaistow, N. H.

BUFF P. Rocks; good size, fine combs, orange yellow legs and beaks, rich buff color. Eggs from prize matings that will produce prize winners, \$1 per 13. Arthur H. Sagendorph, Spencer, Mass.

BARRED P. ROCKS. Bright, Bradley and Latham strains. My birds are large, good shape, have even distinct narrow barring, nice yellow legs, deep br. eggs, are bred for eggs as well as beauty. I have spared neither time nor money to get the best. Satisfaction guaranteed. Eggs, \$2 per sit; \$3 for 5. J. E. Tibbitts, Blackinton, Mass.

BARRED Rocks, E. B. Thompson strain. On 26 entries we won 21 prizes in competition with the best. Customers say we give big value; we do give satisfaction; also bred for eggs. Eggs, \$1 per 13. F. S. Nicholson, Cambridge, N. Y.

TRASK'S Plymouth Rock Farm is headquarters for Barred, White and Buff P. Rocks, acknowledged the best yearly layers, and able to win. Winning 2 seconds at Peabody; 2 firsts, special and 4 at Beverly, '99. Eggs, \$1 per 13. E. F. Trask, Beverly, Mass.

BARRED P. Rocks, a choice brown egg heavy laying strain. Strong, vigorous, money making birds. Pedigree, Coburn-Hunter, Eggs, \$1.25 per 13; \$2 per 30. E. W. Harris, No. Acton, Mass.

HAWKINS

BUFF ROCKS

Wins the leading prizes in hottest competition with the oldest breeders of

In the country, at America's greatest show of the year

AT BOSTON,

Jan. 17—21, 1899, winning special prize for best display of Buff Rocks; special for best cock and 2 hens; special for best cockerel and 4 pullets; 1st, 4th and 5th cockerels; 2d and 4th pullets; 1st, 3d and 5th hens, and 2d cock.

50 Choice Breeding Cockerels and 200 Females for Sale.

Whatever I breed I have THE BEST. My Buff Rocks are up to date, and no one can sell you better. I shall sell eggs from 6 grand pens of BUFFS, and you can depend on

THE BEST.

Ad. on back cover.

A. C. HAWKINS, Lancaster, Mass.

OH, MY! GREAT HIT! HA! HA! Humorous song "Expansion," words and music, and Ching Ching on the "Open Door," 6c. stamps. E. H. TERHUNE, Rutherford, N. J.

BUFF P. Rocks—I won at Haverhill, Lambert, judge, regular and special prizes, including 1 collection for best cock 2 cock 1s; 2 hens; and 5 pullets; also grand special for 10 highest scoring birds in Buff Rock class. Eggs \$2 per 13; \$3 per 40. Geo. C. Perkins, Box 613, Haverhill, Mass.

UTILITY BRED B. P. Rocks and Bucks County eggs, \$1 for 15; \$5, 100. E. M. Walcott, Bolton, Mass.

WILLIAM Street Poultry Yards, E. S. Holt, prop., breeder of Buff P. Rocks exclusively. (brown egg strain) \$2 per sit. 13; two sit. to same address \$3. E. S. Holt, 61 Williams St., Norwich, Conn.

EXHIBITION and egg qualities combined in my Buff P. Rocks. Eggs \$2 per 13. F. C. Fitch, Wilton, N. H.

BUFF Plymouth Rocks, carefully bred for past four seasons; there are none better. Eggs from two selected pens two dollars per fifteen. A few good cockerels left cheap. C. F. Brown, 112 Wash. St., Haverhill, Mass.

BUFF PLYMOUTH Rocks, 1st, 3d pullet, 2d cock 1, Lynn show, '99. Eggs 1 sitting, \$2; 2 or more, \$1.50 each. Chas. F. Hunt, 157 Maple St., Lynn, Mass.

BUFF and White Rocks bred for eggs. Averaged 206 eggs for the year. 15 eggs \$1.50; \$6 per 100. E. D. Hawes, Franklin, Mass.

25 GOOD W. P. Rocks pullets and 25 hens for sale. Eggs for hatching from good vigorous stock, \$1 per sitting. Gerry B. Lawrence, Canal Poultry Yards, Ashby, Mass.

WHITE PLYM. ROCK cockerels, \$2. Eggs, \$1.50. Wm. Hahman, Box 3, Altoona, Pa.

BUFF ROCKS. Eggs, \$2 per 15; \$3.50 per 30. Mrs. A. L. Powers, Leominster, Mass.

MAMMOTH White P. Rocks, Hawkins and Taylor, \$4 and 9 lb. pullets, mated to 11 and 12 lb. cocks, 15 coffee colored eggs, \$1.50. H. J. W. Fay, Westboro, Mass.

B. P. Rocks, Pekin ducks a specialty. Eggs \$1 for 13. Cir. free. D. L. Horton, Jr., Andover, N. J.

BUFF P. ROCKS and Buff Wyandottes, 1st to the skin. Won wherever shown this year. West Newbury, Mass., agricult' fair, clean sweep on Buff P. and Buff W., and 2 specials, judge, Atherton. Amesbury and Salisbury agricult' fair took two firsts and 2, 3, 4; H. B. May, Amesbury show, 1, 2, 3, 4, and 3 specials on Buffs, judge, 1. K. Felch, Haverhill show, 1, 2, 3, 4, and 5 specials, judges Lambert and May. Eggs \$1.50 per sitting.

John A. Bradley, Box 87, W. Newbury, Mass.

26 EGGS, \$1; 100, \$3.50. W. R's exclu. 1st pen Rochester, '99. F. B. Parrish, W. Greene, N. Y.

DON'T forget my prolific strain of Barred Plymouth Rocks. F. W. Harris, No. Acton, Mass.

BARRED P. R. Thompson str. Eggs \$1 per 13. Miss Virginia G. Van Atta, Waverly, N. Y.

GREAT LAYING STRAIN. My Barred Plymouth Rocks have been bred for layers for the last 8 years, are nicely barred, strong, vigorous, farm raised birds, and last year averaged me 191 eggs each. Eggs, \$1 per sitting.

W. F. Peckham, Lexington, Mass.

4 GRAND yards of White Rocks, mated for utility as well as fancy, entailing females of rare individual merit, scoring from 92 to 95, headed by nales that are white, and of the stay white kind, scoring to 94 for cock 1s. Eggs \$1 per 13 straight; Incu. eggs \$6 per 100. Satisfaction guaranteed. Geo. F. Movlan, West Newbury, Mass.

B. P. ROCKS won at Milford, N. H. Eggs \$1.50 per 13. Buff Rocks and White Wyandottes. Fine stock. Eggs \$2 per 13; \$5 per 40. W. P. Weston, Hancock, N. H.

FIELD'S Buff Rocks, 12 premiums at Boston, Jan., '99; 1st cock, 4th cock 1 at N. Y., Feb., '99. (Circulars.) Field & Son, Somers, Conn.

POULTRY PRINTING.

500 CARDS 90c., etc. Stamp for samples. Haskell Press, 36 Elm St., New Bedford, Mass.

POULTRY REMEDIES.

COMBINATION Nest Egg and Lice Killer. Absolutely fatal to parasites. Something new. Weight one ounce. Price by mail, ten cents (N.C.) Agents wanted. John H. Tingley, Rahway, N. J.

POULTRY SUPPLIES.

GRASSSEEDS, Cattle and poultry supplies, Canada peas, millet, broken rice, rice meal, beef scrap, ground bone, grit, canary, hemp and rapeseeds. C. H. Reeve, 119 West St., New York.

BOILED BEEF AND BONE. Frank L. Thornton, 28 Sabin St., Providence, R. I., wholesale and retail Rhode Island agent.

RED CAPS.

JAMES I. PARK, Orono, Maine, Red Caps exclusively. Eggs \$1.50 for 13. Cock 1s. Prices right.

RHODE ISLAND REDS.

OURS WON FIRST on cock, hen, cockerel and pullet, and all second premiums but one on same at last Boston show. We have ten breeding yards and are shipping R. I. eggs, best, \$3 per sitting; two for \$5; three for \$8. Second best, \$2 per sitting; two for \$3; five for \$8. No more incubator eggs this season. No stock for sale. Illustrated descriptive circular and price list free. Farm at West Mansfield, Mass. Samuel Cushman, Lawlucket, R. I.

R. I. REDS, prolific layers, brown eggs \$1 per 15; \$5, 100. E. F. Chamberlain, Wollboro, N. H.

R. I. REDS exclusively. Eggs \$1.50 for 15. E. A. Hall, 60 High St., North Attleboro, Mass.

FOURTH YEAR a breeder of Rhode Island Reds. I have three hundred of these beautiful birds all raised on my farm. My stock is unexcelled in vigor, size and color. Utility and beauty is my aim in breeding. Rose or Slagle Comb. Eggs, \$1 per 15; \$2 per 30. A. E. Cummings, Hudson, New Hampshire.

R. I. REDS, B. P. Rocks, Hunter males. Light Brahmas, handsome vigorous utility strains. 15 eggs \$1; 40, \$2. L. D. Cole, Auburn, N. H.

EGGS FOR HATCHING, R. I. Reds, Bucks County 15 for \$1; \$4 per 100. C. R. Dutton, Westminster, Mass.

R. I. REDS, greatest layers on earth. Eggs \$1.40 per 15. Albert A. Simmons, Dighton, Mass.

CREAM of R. I. Reds, winners at Boston, Brockton, Fall River, and R. I. state fairs, vigorous, productive, standard stock. Eggs from prize birds, \$1.50 sitting; 4 sit. \$5. Belmont Farm, Fall River, Mass., J. Crowther, prop., sec. R. I. Red Club.

FOR BEAUTY and layers of dark brown eggs, choose R. I. Reds. My stock is first class. Eggs \$1 per 15; \$2 per 30; incubator, \$5 per 100. W. S. Marey, Hillsboro Bridge, N. H.

R. I. REDS and White P. Rocks, grand matings. Eggs \$2 per 15; 4 sittings, \$5. C. H. Allen, Apponaug, R. I.

SINGLE COMB Rhode Island Reds that are red, not buff. Eggs from nice colored utility birds, \$1 per sitting; from an extra fine colored pen of even red birds, \$2. A. H. Cotton, Nashua, N. H.

RHODE ISLAND REDS. Eggs by sitting or 100. John E. Davis, Methuen, Mass.

MY Reds won first place at Milford, N. H. Eggs \$1.50 per 15. W. P. Weston, Hancock, N. H.

TURKEYS.

W. HOL, and Bronze, \$2 to \$5. Eggs in season; stock. C. Adell Kaynor & Co., Lockport, N. Y.

EGGS from large healthy White Holland turkeys of the finest strains, 20c. each. Good hatch guaranteed. Thos. Haulton, Wigton, Pa.

ONE-HALF PURE wild toms, excellent for producing ferr. eggs and healthy poult when crossed on tame hens. J. H. Graves, Jr., Chilesburg, Ky.

WANTED.

YOUNG MAN, to learn the poultry business, on a practical poultry farm. Small wages after first month. Address, "Poultry Farm," this office.

2D HAND Prairie State or Cyphers 200-egg size. G. W. Bean, 143 Lynnfield St., Lynn, Mass.

YOUNG MAN of some experience desires a situation on poultry farm. Fancier's place preferred. Address Box 8, Dublin, N. H.

WANTED, situation by expert poultryman, good character. "B," 68 Myrtle St., Boston, Mass.

WHITE WONDERS.

TORREY'S White Wonders won 1st, 2d, 3d, at Essex Co. show, Beverly, in '98 and '99. Eggs \$1 per 15; \$4 per 100. R. S. Torrey, Wenham Depot, Mass.

EGGS, \$1 per 15; \$5 per 100. Stock direct from originator. A Standard free to each customer. Stamp. Also a few from standard Pekins. L. A. Thompson, Winneance, Me.

WYANDOTTES.

BUFF and White Wyandottes, up to date stock. Eggs for hatching a specialty. Write for desc. and prices. C. S. Johnson, West Brookfield, Mass.

WHITE WYANDOTTES exclusively. Prolific layers of large brown eggs. Write for prices on eggs in large quantities. E. R. Perry & Son, No. Charlestown, N. H.

WHITE Wyandottes a specialty; large size, farm raised, great layers brown eggs. This is the strain you want for eggs, poultry, or prizes. Eggs, 1 sitting \$3; 2 for \$5; 3 for \$7. Dr. A. A. Howland, Pleasant St., Worcester, Mass.

BLACK, White and Buff Wyandottes from best strains in the country. Eggs \$2 for 15; \$3 for 30. J. W. Laue, Concord, N. H.

GOLDEN Wyandottes winners at Danbury and other shows, bred for business. Eggs \$2 per 15. Write. E. Wayne, Bernardston, Mass.

BUFF Wyandottes only, 3 pens of large choice matings. Eggs \$1.50 per sitting; 50 eggs \$5. C. W. Cole, Dighton, Mass.

WHITE Wyandottes exclusively. Choice pens mated to 9 and 10 lb. males. Extra good layers, brown egg strains, bred for utility as well as beauty. Eggs \$1 per 15; incubator eggs 100, \$4. Satisfaction guaranteed; circular free. B. Billings, Oberlin, O.

WHITE Wyandottes exclusively. Eggs from my best pens, very brown egg, prolific laying str., \$2 per 15; \$5 per 30. Standard Wyandotte Yards, Lock box 95, No. Attleboro, Mass. Sat. guaranteed.

WHITE Wyandottes, great winter layers of brown eggs; large, vigorous, early laying stock. Eggs, \$1.15; incubator eggs, \$5, 100. Stock in season. A. M. Jerauld, No. Attleboro, Mass.

WHITE Wyandottes, Mack-Dustin strain. B. P. Rocks, Thompson-Nash strain. Eggs \$1.15; \$2 for 30. Andrew Shanahan, Rockland, Mass.

BUFF Wyandottes; good size, fine combs, rich buff color, yellow legs. Eggs from exhibition matings, \$1 per 15. Arthur H. Sagendorph, Spencer, Mass.

WHITE WYANDOTTES, business stock and Standard bred. Hens prolific layers, none better. Low prices. Write for egg circular. Ralph Woodward, New Rochelle, N. Y.

CHOICE White Wyds., utility and fancy combined, eggs, \$1.50 for 15; \$2.50 for 25. They will please you. J. R. Nichols, Roehdale, Mass.

AT Boston, '99, in the hottest competition ever known on Wh. Wyandottes, I won 10 premiums. My birds are large, white, and true Wyandotte shape. Eggs, \$2 per 15. F. H. Fuller, Box A 65, Hinsdale, N. H.

WHITE Wyandottes exclusively, a few cockerels at \$3 each. Eggs, \$2 per 15; \$5 per 50. R. H. Biddington, W. Brookfield, Mass.

WHITE Wyandotte eggs from stock won first prizes Boston, New York—Duston, Andrews, Knapp strains. Great layers dark brown eggs—for 30 days one-half usual price, 15 only \$1.50; 100 eggs \$5. Pullets average weight 7 lbs., cockerels 9 lbs. A few breeders. J. S. Gates, Westbrook, Mass.

BLACK Wyandotte eggs \$2.50 per sitting; choice stock, prolific layers. Boston winners. Circular. W. H. Congdon, Oak Lawn, R. I.

WHITE WYANDOTTES exclusively, Duston and Hunter strains. Eggs, \$1.50 per 15. Book orders now. Meadowbrook Farm, Westfield, Ind.

1776 FARM, Warner, N. H. Prolific br. egg farm raised W. Wy. Bar. P. Rocks, C. I. Games, Lt. Brahms. Stock \$1 to \$3. Satisfaction. Eggs 15, \$1.25; 30, \$2; 45, \$3; 95, \$5.

Our new advertisers of a few issues ago who are doing well are C. W. Richardson & Son, Apponaug, R. I., who breed up to date Barred P. Rocks and White Wyandottes.

These parties are in the fancy business to stay, and report good egg sales from their old customers, which goes to show that they have been treated very satisfactorily.

Mr. R. H. Nott, Hanover, Mass., advertises in our columns choice eggs from choice farm raised White Wyandottes at \$2 per sitting, and incubator eggs at \$6 per 100. Mr. Nott gives his birds free farm range, and reports that his eggs are hatching very fertile, and that he is in a position to fill orders promptly on receipt.

A breeder of Rose Comb Brown Leghorns who has always had good success, is Mr. J. L. Randolph, Bartlett, Ohio.

Mr. R. has been a steady advertiser in our classified columns since FARM-POULTRY started, and we have never heard a word of complaint against him. We have heard many good words from his customers, and the following testimonial speaks for itself:

Frankfort, South Dakota.

Mr. J. L. Randolph—Dear Sir: From the thirty-three eggs received from you all but one hatched. I never saw anything like it. You certainly have the breeding process reduced to a science. You will hear from me again.

J. P. HARLOW.

Mr. C. H. Jenks, proprietor of the R. I. Poultry Yards, Pawtucket, R. I., paid us a short visit a few days ago, and reports business as brisk. Mr. Jenks is a breeder of long experience, and handles the two popular breeds of pure bred business poultry, the White Wyandottes and Buff Plymouth Rocks. He has exhibited at all the leading shows, and this year came to Boston and competed with the crack breeders of the country, doing very well indeed. He also manufactures the "Stay There" Leg Band, made from the best german silver, in sizes for any breed desired. As his prices are reasonable, and as he can fill orders at once, our readers would do well to give him a trial.

See his ad. in this issue.

A Reliable Poultry Supply House.

One of the oldest poultry supply houses in the country is the well known one of Fred G. Orr & Co., 5 and 6 Commercial Wharf, Boston, Mass.

They have been constant advertisers in FARM-POULTRY during the past ten years, and have shipped their goods to all parts of the country, always giving entire satisfaction. Mr. Orr believes in carrying a full line of goods, and most anything a poultryman could possibly need can be supplied at once from his extensive stock. He is the agent for the Peep-o'-Day incubators and brooders, and the celebrated Smith & Romaine's B. B. B. Our readers should look up his ad. in this issue, as we can recommend this house to any one as upright and honorable.

MY WHITE WYANDOTTES have a record equal to any. Have exhibited the past season over 40 different birds at the leading N. E. shows, winning 1st prize on pen at 3 different shows, besides many other 1st and specials. My 1st prize pen at Amesbury, Dec., '97, average score 95.1-2. My 1st prize pullet, 96.1-2. They have very small even combs, many being cut only 1-2 point. Red eyes and lobes white, with very rich yellow legs. Will pay you to come and see them; 4 grand pens for best results, farm range. Have taken as much pains to breed for good laying of large brown eggs as well as fancy. Write for any particulars. Eggs \$2 per sitting; 3 sittings, \$5. J. H. Jackson, Box 530, Hudson, Mass.

W. WYAN. eggs, \$1 per sitting; \$5 per 100. Hens good size and vigorous, and lay brown eggs. A. B. Savary, E. Wareham, Mass.

GOLDEN Wy. win Woodstock and other shows. Eggs \$2.15. Edwin P. Emery, Woodstock, Vt.

213-EGG White Wyandottes, Duston str., prize winners, 7 to 7 1/2 lb. pullets mated with 9 to 10 lb. vigorous farm raised cockerels. Small combs, snow white plumage, orange yellow legs and beaks, 15 brick colored eggs, \$1.50; \$6 per 100; cockerels, \$3 each. H. J. W. Fay, Westbrook, Mass.

WHITE WYAN. exch. Vanhagen's dark brown egg strain. Eggs 15 for \$2; 45 for \$5. Circular. F. W. Howes, Woodstock, Vt.

\$1 FOR 15; \$3 for 45 eggs from healthy Wh. Wyandottes scoring 90 to 95. At Fredonia, Dec., '98, won 2d pul., 2d ck., 3d pen and special. Standard weight and white, large brown eggs guar. 75 per cent fertile. Dus. and Prom. str.'s. Edith Rowley, Stockton, N. Y.

W. H. Wyan. eggs, Hawkins, Duston str., \$1.50 for 15. W. B. Gaudard, Delta, O.

WHITE Wyandottes, best strains. Cockerels \$1 to \$3; eggs \$1.15; \$2.30. Extra good layers. M. V. Allen & Son, Ovid, N. Y.

MY SILVERS won at Northampton, Fitchburg, and Ware. At Ware 5 entries, I won 4 first, 1 third, 5 special. First hen 92.1-2 by Alberton. My stock up to date, lay brown eggs, standard weight. Eggs, \$2 for 15; \$3.50 for 30. R. G. Williams, Box 46, Barre, Mass.

WHITE WYANDOTTE cockerels, \$2. Eggs, \$1.50. Wm. Hahman, Box 5, Altoona, Pa.

WHITE Wyand., that please the practical poultryman and the fancier. Eggs, \$1 per 15. Write for particulars. P. D. White, North Attleboro, Mass.

W. WY. eggs from best pens, brown egg, prolific laying str., \$2 per 15; \$5 per 30. Few good breeding pullets. F. C. Price, Bridgewater, Mass.

BUFF Wyan. exch. Eggs \$2 for 15; 40, \$4.50. Circular. G. W. Felton, Barre, Mass.

WHITE Wyan., winter laying strain, perfection. Eggs, 75c. per doz. Choice Pekin ducks, eggs 75c. per doz. Prairie State duck machine at your figure. V. F. Lacroix, Stillbrook Farm, Glen Co., Ill.

WHITE WYANDOTTES exclusively. Large dark egg laying strain. Eggs, 15, \$2; incubator eggs, \$6, 100. C. W. P. Nichols, Wellesley, Mass.

B. P. ROCK eggs \$1 per 15; \$1-100. W. Wyan., Lt. Brahms, eggs \$1-15. Money, hardly business fowls. Write. E. W. Capen, Stoughton, Mass.

FERNALD'S White Wyan. commended on pen at Boston show, '98. Eggs \$2 per 15; \$5 per 45; \$8 per 100. 90 pullets and 7 cockerels to close out the whole in lots of 10 or more. I am offering all my best breeders at fair prices. My birds that won at Boston are included. Write at once if you cannot call and see them. Address John S. Fernald, 273 Heath St., Roxbury, Mass.; or Fred G. Orr, 5 Commercial Wharf, Boston, Mass.

SILVER-BUFF. Eggs \$2 per 15. Dr. N. W. Sanborn, Wellesley Hills, Mass.

NOBSCOT MT. STRAIN. Pure White Wyan. Eggs for hatching, \$2 per 15; 2 sittings, \$3.50; 3 for \$5. Incu. eggs, price on application. Nobscot Mt. Poultry Farm. P. W. Jones, So. Sudbury, Mass.

BUFFS. Early maturing, heavy laying stock, 15 brown eggs \$1. L. E. Truesdell, Zoar, Mass.

WHITE Wyan. and W. P. R., bred for points and utility. 15 eggs \$1. N. E. Whiting, Norwich, Ct.

WHITE Wyan. exch. Prolific layers, farm raised. Eggs \$2 per 15; \$5 per 30. Incu. eggs \$5 per 100. C. E. White, Fox Chase, Philadelphia, Pa.

SILVER Wyan. eggs \$1.50 per 15. Stock for sale. Geo. A. Whitely, Athol Center, Mass.

WHITE Wyan., best of stock. Eggs \$1 per 15. Geo. W. Blake, Penacook, N. H.

MY RECORD at Amesbury, Dec., '98, proves that the quality of my stock is equaled by few and excelled by none. Winning 1st and 2d cocks, 55.2, 54.4; 2d hen, 83.2. Eggs from 3 grand pens, \$1 per 15; incubator eggs, \$6 per 100. White Wyandottes exclusively. Geo. D. Whitler, West Newbury, Mass.

BUFF Wyandotte eggs selected pen headed by a Boston winner. E. C. Fenn, Ware, Mass.

BUFF WYANDOTTE eggs, \$1 for 15. T. P. Jennings, 14 Everett St., Lynn, Mass.

BUFF WYANDOTTE eggs. Beautiful golden Buff, bred for utility and beauty, \$2 per 15. Eugene Roof, Newburyport, Mass.

MY WHITE WYANDOTTE eggs are hatching over 90 per cent strong healthy chicks. Have 4 grand pens; there is no better at any price. My show room record has very few equals. I guarantee a good hatch, and sell eggs from the same I use myself. I have commenced to hatch early so to meet the demand later. My birds are noted for their fine combs, pure white plumage, bay eyes, rich yellow legs, healthy farm raised breed for laying of large brown eggs, as well as fancy. Eggs, \$2 per sitting; 3 sittings, \$5. J. H. Jackson, Box 530, Hudson, Mass.

FIELD'S Buff Wyand. 12 premiums at Boston, Jan., '99. Hartford, Jan., '98, 1st, 2d, 3d, 4th, cock 1; 1st, 2d, 3d pullet. Circ. Field & Son, Somers, Conn.

BARRED PLYMOUTH ROCKS.

Special egg offer to practical poultry people. Send your name and address for one. C. A. BROWNING, Box L, Apponaug, R. I.

Printing for Poultrymen.

Now is the time for spring announcements. Send for proof sheets of our poultry cuts. We have a special proposition to make to those issuing catalogues. We do fine work. Write us for your wants, enclosing stamp.

EAGLE PUBLISHING CO., Job Dep't., Pittsfield, Mass.

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W. Wyandottes and S. G. W. Leghorns

Win the honors this season at Newton, Ct.; Milford, Mass.; New Haven, Ct.; Danbury, Ct.; and Lenox, Mass., at latter place winning on W. Wy. every first prize and special for best bird in Am. class. Eggs from such birds \$1.50 per 15; \$4 per 30. Eggs are proving high fertility. Write for my new booklet—tells all about them.

R. H. HOLMES, W. Redding, Conn.

FARM POULTRY YARDS.

This Ad. will appear once a month.

15 Eggs \$1.00
30 " 1.75
60 " 3.00

Two vermin destroying nest-eggs with each order. Golden, White and Silver Wyandottes; Golden and Silver Spangled Hamburgs; Rose and S. G. Brown, R. and S. G. W. Leghorns; Barred and W. P. Rocks; Black and White Minorcas; Golden S. Polish, Red Cans; W. P. B. Spanish, Dom. Leghorns; Houdans, Buff Leg., Buff Cochins, Lt. Brahms and W. C. B. Polish, Buff Wya., Buff P. Rocks, and Rose C. B. Minorcas. Buff Laced Polish.

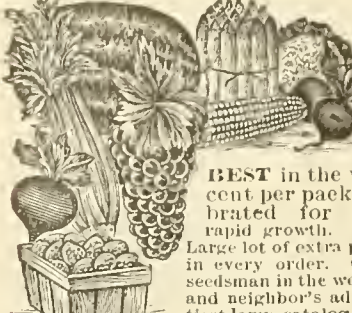
INDIAN GAMES, \$1 for 15; \$2 for 30. Pekin Ducks, 60c. for 9; \$1 for 18.

Most of our poultry is kept on separate farms, therefore the eggs are fertile, and the chicks strong and vigorous when first hatched. A fair hatch guaranteed or order duplicated at half-price. Circular free, containing list of premiums won, etc. Send money any way except check.

WHITNEY BROS., Triangle, N. Y.

GREEN CLOVER

Second growth cut 1/2 inch lengths, ready for use, \$1.25 per 100 lbs.; \$5 per 500 lbs. Editor Boyer uses our Clover. One Prairie State duck special incubator cheap. Cir. NIAGARA FARM, Ransomville, N. Y.



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BEST in the world from 1 cent per packet up. Celebrated for strong and rapid growth. Postage paid. Large lot of extra packages free in every order. Oldest reliable seedsmen in the west. Send yours and neighbor's address for prettiest large catalog ever printed. R. H. SHUMWAY, Rockford, Ill.

Brown Leghorns at Boston.

The Largest Show ever held in America.

The GLENRIDGE POULTRY YARDS again show WINNERS.

We were awarded on our BROWN LEGHORNS, 1st cock; 2d and 3d hens; 3d cockerel; 1st and 2d pullets; 2d pen; specials for best 2 cocks, 2 hens, 2 cockerels, 2 pullets, and for best cock and 2 hens.

... Tie for Best Display. ...

We now offer

EXCELLENT BREEDING BIRDS

At reasonable prices. Eggs from large birds of standard color mated to produce prize winners:

\$3 per 15; \$5 per 26; \$10 per 65.

TENNEY & HARRINGTON, - - West Newton, Mass.



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ROSE AND SINGLE COMB EGGS. Rose Comb, \$3.00 to \$5.00. Single " \$1.00 to \$3.00.

4 PRIZE WINNERS at N. Y. Show, '99, in Rose Comb Pen No. 1.

PENS headed by PRIZE WINNERS Or producers of Prize Winners.

BARRED **Plymouth Rocks**

EGGS,—Buff, \$3.00; Barred, \$1.50 per 15.

THE BEST IS THE CHEAPEST. Circular free for the asking. Eggs only for sale now.

RALPH STODDARD, Rutland, Vt.



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56 PIECES. Full size for family use, beautifully decorated and most artistic design. A rare chance. You can get this handsome china tea set and one dozen silver plated tea spoons for selling our Pills. We mean what we say and will give this beautiful tea set absolutely free if you comply with the extraordinary offer we send to every person taking advantage of this advertisement. To quickly introduce our Vegetable Pills, a sure cure for constipation, indigestion and torpid liver, if you agree to sell only six boxes of Pills at 25 cts. a box write to-day and we send Pills by mail. When sold send us the money and we send you one dozen Silver plated tea spoons together with our offer of a 56 piece china tea set same day money is received. This is a liberal inducement to every lady in the land and all who receive the spoons and tea set for selling our Pills are delighted. AMERICAN MEDICINE COMPANY, Dept. J 30 WEST 13th St., NEW YORK CITY.

Healthy Chickens.

How to Keep Them So, and Prevent Disease.

"An ounce of prevention is worth a pound of cure,"—the saying is old and true. It is one that all poultrymen should remember, and in remembering practice prevention of disease in their flocks, young and old. Begin with the little chicks, keep them healthy, with good appetites and good digestion, strong, active, and growing quickly into hardy, healthy fowls, and show that you have learned what prevention means.

It is a well known fact that thousands of chickens are sacrificed every season—as one writer puts it, "die like poisoned flies,"—all from the want of that "ounce of prevention." It is easy enough to say, "Oh, some of 'em will die, anyhow," or, "we have to reckon on a fifty per cent loss of all chicks hatched;" but wait a bit, you know you are in the wrong, or you would not offer such flimsy excuses. The natural tendency of the chick is to live; that's what it came here for. There is no need of a high death rate in little chicks if you give them half a chance, and make an effort to prevent disease.

Nearly all the ailments little chicks are afflicted with are the result of disturbance of the digestive organs. In order to get rapid growth we feed concentrated foods, and take little note of the fact that we are taxing their digestion to the utmost limit of endurance. Rapid growth, early maturity, and prompt returns in cash profits are all things to be desired. Every chick saved is so much gain. We are all of us desirous of getting the profits as well as the pleasure out of our poultry. We want to raise all our chicks if we can;—no one likes to see their early hatched chicks dying off "like poisoned flies." When that happens we wish we had had more respect for that "ounce of prevention."

We can prevent disease, and keep our chicks strong and healthy. As before stated, the majority of ailments are due to impairment of the functions of the digestive organs. It is a well known fact that Sheridan's Condition Powder is a great aid to digestion, and that it assures more perfect assimilation of the food elements needed to sustain life and develop the growing chick. It is not a medicine, and not a food, but is a scientifically prepared condition powder that is to be used to insure the perfect digestion of food, and a sound constitution in chick or fowl, and so render them immune to disease.

If we want strong, hardy, vigorous fowls we must begin with the chick. Paraphrasing Wordsworth, we can say: the chick is parent of the fowl. If we do well by the chick we can be confident that the fowl will do well by us. Now how shall we give our chicks a start? For the first twenty-four hours after hatching they do not need food, as the portion of yolk that has just been taken into the abdomen has not been fully digested; and then, too, the chick should get accustomed to the fact that he has "just been borned" before his little crop is started on its seldom empty journey through life. When the batch comes off let the little fellows have a drink of pure fresh water (not too cold); this invigorates them and helps clear the digestive organs of the waste from digested yolk.

The first food should be bread crumbs and hard boiled egg or johnnycake. To each pint of food half an even teaspoonful of Sheridan's Condition Powder should be added, and also a sprinkling of chicken grit. The food for the first few weeks should be johnnycake, rolled oats, coarse oatmeal, and bread or cracker crumbs. A little well cooked meat finely minced three times a week, and a liberal supply of fresh green food, grit, charcoal, and pure water, is essential to health. Twice a week they should get the Condition Powder with their food, preferably mixed with the johnnycake or bread crumbs, and moistened with milk. This will insure a good digestion, and a good digestion is a safeguard against disease.

When the chicks get to be six weeks old they should have a cooked mash for supper six nights in the week, and Sheridan's Powder should be given in this mash twice a week in the proportion of a heaping teaspoonful to each quart of dry meal in the mash. As the chicks grow the amount may be slowly increased, until the proportion is two tea-

spoonfuls to each quart of dry ground grain. For other food they should have hulled oats, wheat, and a little cracked corn—fresh green food always.

From the first have a litter of chaff or cut clover and sand for the chicks to scratch in; exercise is essential to good digestion. Give them sunny quarters, but provide a shelter in case the sun is too hot, and for protection in stormy weather. When warm weather comes be sure that they can have plenty of freedom and exercise on the green bosom of "Old Mother Earth;" keep them busy, happy, and hungry. Be careful not to overfeed. If you must coop them up, make the coops large enough to give them plenty of room to exercise and grow. Change the location of such coops often, to give them fresh ground to run on. And last, but not least, remember that *an ounce of prevention is an ounce of Sheridan's Condition Powder.*

HARDY CHICK.

Sheridan's Condition Powder may be had of your druggist, grocer, or grain and feed dealer, or direct from the manufacturers. Single pack, 25c.; five for \$1. Large two pound can, \$1.20; six cans, \$5, express paid.

I. S. Johnson & Co., 22 Custom-House Street, Boston, Mass.

Scrofula. Paralysis.

Mr. Editor:—1st. I have trouble with a cockerel—one of his wattles became inflamed and swollen. At first the trouble was attributed to frost, but as no other fowl in the pen had been frostbitten, it did not seem reasonable that he should have suffered. Later there developed on the wattle two black spots which were regarded as black warts, from a description in Dec. 1st F.-P. I attempted to scrape away the wart and treat as directed in that article, but instead of the raw sore I found under the wart a yellowish cheesy growth which filled the whole wattle. I grasped it with my thumb and knife blade and extracted the whole lump, it being one and one-eighth inches long, seven-eighths inch wide, and about a quarter inch thick. The cockerel seems healthy, eats heartily, and crows lustily, but today I discovered that the same material is again growing within the wattle, which is again swollen. The growth sticks fast now, and the parts bleed, which did not occur the first time. What ails the bird—and how shall he be treated?

2d. A Dorking pullet became very sick recently with what I diagnosed to be congestion of the liver. I made the diagnosis from what I found in July F.-P., and treated the patient as there directed. She recovered, and seemed well except that she was lame. Later she lost the entire use of her right wing and leg, and the entire flesh of the leg is gone. I was feeding her and a cockerel for the poultry show, and overdid the thing. Both were sick alike, both were treated alike, and the cockerel is now fully recovered. Can anything be done for the pullet? W. T. Shelby, Ohio.

[1st. Cockerel has scrofulous inflammation of wattle. If you want to treat him, cut off the diseased wattle with a sharp knife, and sear the raw edge with hot iron to stop bleeding. Be sure you cut away all diseased tissue. Burnt surface should be anointed with unguentine to ensure prompt healing. We would not want to breed from such a bird if he were ours; and should kill him and burn the carcass.

2d. The pullet has paralysis following disease of liver. She cannot be cured.—Ed.]

Utility and Fancy Combined.

Mr. Editor:—I read a good deal about combining utility and fancy, but do you really believe that it can be done? Do you know of any utility breeders that are fanciers, and who win in the show room? B. M. T. Baltimore, Md.

[Yes, to both questions. At the New York show, Hartnest Farm Light Brahmas won third on pen, and the birds were the progeny of prolific layers. An Experiment Club member, Mr. Hewitt, of Ogden, Utah, combines fancy points and prolific laying in his Leghorns. Here are two extremes, Aslaties and Mediterraneans, and in both it has been possible to combine utility and fancy qualifications.—Ed.]

R. I. Reds at Boston Show.

Mr. Editor:—Kindly allow me, through the columns of FARM-POULTRY, to thank the management of the Boston show for their enterprise and advanced ideas in making a class for the Rhode Island Reds. Inasmuch, however, as their decision was not reached till some time after the premium lists were issued, its full effect and the appreciation it calls forth could not be adequately proved at the last exhibition. I am satisfied that the Reds would have been one of the largest classes in the show,—larger even than at the Fall River show, (eighty specimens), had the premium lists contained the announcement of the classification. Fall River breeders did not exhibit, simply because they thought the Reds would go, as formerly, under the head of "any other variety."

In this connection I would suggest that the rose and single comb varieties be allowed to compete separately in succeeding shows, as do Leghorns, Minorcas, etc. With such an arrangement in 1900 and thereafter, all Rhode Island Red breeders would "whoop it up" vigorously for the Boston show.

Fall River, Mass. JOHN CROWTHER.
Feb. 18, 1899. Secretary of R. I. Red Club.

On a Maryland Farm.

Mr. Editor:—I have had a good year with my poultry. They have been fine and healthy throughout the year; but I can now see where my profits would have been much greater with better management. I started the year with about seventy-five hens and pullets. My sales, with those killed for family use, and eleven killed by a weasel, reduced the number to thirty-three by October. I sold, during the year \$89.50 worth of poultry and eggs, but kept no record of what was used in the family; but they were used plentifully, and I am sure they more than paid for the feed. Raised seventy-five turkeys; poultry and pigs fed from the same store of food, so cannot keep record of expense. I know my methods are not business like, but many cares and occasional sickness in the family hinder me from doing what I would like.

FARM-POULTRY has been helpful and entertaining; I cannot do without it.

Bel Alton, Md. Miss H. W. R.



The Warmest Sheathing Paper Made.

Ten times as warm as rosin paper, and costs only about 1c. a foot. A new thing, and a good one, for people who want

ACTUAL RESULTS.

Poultry houses lined with it are wind and frost proof in winter, and cool in summer, and it will not decay or harbor vermin. Send for a sample and full information about

Cabot's Insulating Quilt.

You cannot afford to overlook it.

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CONSERVO ROOST PAINT.

Kills or expels lice and mites, disinfects the houses, and makes them wholesome, and preserves the wood.

Send 50c for a sample gallon.

STOCKING'S PEKIN DUCKS and Wh. Wyandottes

Duck eggs, \$2 per sitting. W. W. eggs, \$1.50 per sitting. W. W. cockerels, \$2 each.
J. F. STOCKING & CO., Montvale, N. J.

POULTRY WIRE NETTING.

Various widths and meshes to keep your hens and horticulture separated—your old "Egg Planters" from your young "Egg Plants," as it were. Staples to put it up with, but no posts at
BRECK'S,
No. Market St., Boston.

The Virtues of a Good Cream Separator.

Just What a Farmer Wants.

Stillwater, Pa., 1898.
"We have the De Laval Humming-Bird cream separator, and I am satisfied that it is one of the best investments that a farmer can make. First we gave it a test, and we gained one lb. on every six lbs. of butter, and we got a much better quality of butter. The washing of crocks and cans and all its extra work is done away with, and we have the warm skim milk to feed to calves and pigs, on which they do so much better, and it takes only from ten to fifteen minutes to churn. It seems a small thing now to churn. I would not do without a machine for what it cost for a great deal. I am well satisfied it is just what a farmer wants, and with the extra butter and time and labor and expense it saves us, it will easily pay for itself in one year." HARVEY R. ASH.

Perfectly Simple in Operation.

Warrensburg, Mo., Jan. 19, 1899.
"We have now used the De Laval Humming-Bird three years, and have not missed a single milking in that time. Last year we made 1,800 lbs. of butter. The machine is simply perfect, and perfectly simple in operation. Our little girl ten years old can operate it, take it apart and clean it, and put it together again." MRS. EZRA ROOP.

A Very Durable Machine.

Leeds, Mass., 1898.
"We have used the 'Alpha-Baby' No. 2 for over four years with the best of results; in fact, we could not get along without it, as it saves so much labor. We can make more butter and of a finer quality than in any other way. It is a great saver of ice, also, as there is only a very little required to keep the cream at an even temperature. It is a very durable machine. We have had no expense whatever except for oil and bowl rings. Can see no reason why it will not last us a lifetime." JAMES CLAPP & SON.

"Alpha-Baby" Superiority.

White Pigeon, Mich., Dec. 19, 1898.
"I am using an 'Alpha-Baby' No. 2, and take pleasure in writing of its excellent qualities. I was using a Cooley creamer, but consented to try 'Alpha-Baby' last fall. The first week I made 5 pounds more butter than I had the week before with the creamer, and the butter was of better quality, finer grain, nicer flavor, and could be kept longer without getting stringy. We find a good market for separator butter the year round at from 22 to 25 cents per lb. I had tried other makes of separators, but never found anything which possessed the same merit as the 'Alpha-Baby.' It runs easier, skims clearer, at different temperatures, and can be washed in no time. If a farmer has ten cows well taken care of, and a separator he will find this to be the most profitable branch of his business." JOS. S. GORTNER.

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CHICAGO. NEW YORK.

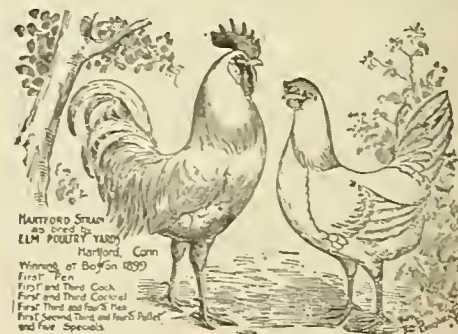
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THIS 100-EGG SELF-REGULATING HATCHER ONLY \$6.



Out-door brooders, 100-chick size, \$5. Hammon-ton incubators with latest improvements, \$12 and up. Nursery brooders, \$8 and up. Prize fowls and eggs. Test, and illus. cir. 2c. J.A. CHELTON Fairmount, Md.



119 The Hartford Strain, 119

Single Comb White Leghorns, S. C. Black Minorcas, Barred Plymouth Rocks, White P. Rocks, White Wyandottes and Light Brahmas, 119 prizes won season passed. All matings for results. Descriptive catalogue for stamps.

EGGS—Prize pens, \$2 for 15; choice breeders, \$1 for 12; incubators, \$5 per 100. Exhibition birds a specialty. State agent for the Star Incubator and Brooder Co.

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Eggs from my best and only pen of

SINGLE COMBED WHITE LEGHORNS,

Hatched by cock, scored 95 by Drevensdt bred to Knapp females and progeny, \$1 per 13. CHARLES M. ABBOTT, Watertown, Mass.

SEA SHELLS

Best grade for poultry shells known \$1.25 bbl.—5 bbl. at \$1. Dis. in quantity. Sample, 2c. F. P. KNOWLES, Guilford, Conn.



INCUBATOR SUCCESS

depends upon the following named essentials—proper distribution of heat and moisture and perfect regulation and ventilation. These points attain perfection in the

PETALUMA INCUBATOR

Add to these points superior construction and finish and you have a perfect machine. They deal only in high percentages of hatch. Sizes from 50 to 150 eggs. Prices \$10. up. WE PAY FREIGHT ANYWHERE in the U. S. Catalogue free. Petaluma Incubator Co., Box 598, Petaluma, Cal.

BRED FOR BUSINESS

Tho' they win in the show room. White Wyandottes, Black Minorcas and Pekin Ducks.

EGGS THAT HATCH

\$2 per set; \$10 per 100, from breeding stock that have few equals. Money back if not satisfied. Circular free, telling more about them. J. E. STEVENSON, Columbus, N. J.

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GREIDER'S FINE CATALOGUE

of prize winning poultry for 1899. The finest poultry book out. A perfect guide to poultry raisers. Calendar for 1899 on cover. Gives price of eggs and stock from the very best strains. It shows the finest chickens and describes them all. Fifty different varieties. Everybody wants this poultry book. Send Six cents in stamps. B. H. GREIDER, FLORIN, PA.

BROILERS FOR PROFIT, 50 cents.

Farm-Poultry Doctor, 50 cents. Profitable Poultry Farming, 25 cents. A Living From Poultry, 25 cents. A Few Hens, monthly, one yr. 25 cents. All the above for \$1.00. Address

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With our Duplex Automatic Machine you can make 100 styles of fence at the rate of 60 rods a day, that will turn everything except wind and water. Makes good log fence at 2c. rod. Rabb of fence for nurseries, orchards, etc., at 15c. per rod. A splendid far need at 18c. per rod and poultry fence at 19c. per rod. Every foot of it will possess the three leading features of this ad. Plain, coiled Spring and barbed wire to farmers at wholesale prices. Get our free catalogue before buying. Address,

LITSELMAN BROS., Box 32, Ridgeville, Ind.

Bull-Strong

Can't get under. The barbed wire holds him back.

With our Duplex Automatic Machine you can make 100 styles of fence at the rate of 60 rods a day, that will turn everything except wind and water. Makes good log fence at 2c. rod. Rabb of fence for nurseries, orchards, etc., at 15c. per rod. A splendid far need at 18c. per rod and poultry fence at 19c. per rod. Every foot of it will possess the three leading features of this ad. Plain, coiled Spring and barbed wire to farmers at wholesale prices. Get our free catalogue before buying. Address,

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Eggs For Hatching.

\$1 per 13; \$2.50 per 40, from my choice pens of Black Minorcas, Buff and Brown Leghorns, S. S. Hamburgs, and B. P. Rocks. New 16 page catalogue free. Address A. G. STAUFFER, Palmyra, Pa.

WHITE WYANDOTTES.

Winners at all the N. E. shows, also, Boston and New York, 1899. Eggs \$2 per sitting; 3 sittings \$5. G. E. GODFREY, Western Ave., Brighton, Mass.

DON'T SET HENS The Same Old Way.

The NAT'L HEN INCUBATOR beats the old plan 3 to 1. 100-Egg Hatcher \$2. Cheap in price but a mighty money maker. Send forward telling how to get one free. Agents wanted. Natural Hen Incubator Co., B66, Columbus Neb

CHOICE LIGHT BRAHMAS.

Stock and Eggs For Sale. Winners at Boston show, 1897, '98, '99. FRANK P. HILL, Allston, Mass.

LAYERS.

I have several pens of highly improved thoroughbred stock, bred to laying and size with due regard to standard. B. P. Rocks, W. Wyandottes, S. C. B. Minorcas, G. P. Hamburgs, \$1.50 per sitting; \$5 per 50. E. P. LEWIS, Old Orchard Farm, Reading, Pa.

POULTRY SUPPLIES

"EVERYTHING FOR THE POULTRY YARD."

The New American Incubators & Brooders are not toys, but successful business machines, built upon honor and sold under a positive guarantee. Pure Bred Poultry and eggs for hatching. Send 4 cents in stamps for Nisly's 1899 Poultry Annual and Catalogue of "Everything for the Poultry Yard." Nearly 100 pages, nicely illustrated; full of information; you need it. Address,

GEO. J. NISLY, 13 Adrian St., Seline, Michigan.

Oldest Established Poultry Farm and Supply House in the West.

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GEO. J. NISLY, 13 Adrian St., Seline, Michigan.

A Show at Worcester.

Mr. Editor:—The Worcester Fur and Feather Club will hold a show on the week of Dec. 11–16, at Worcester, Mass., T. Farrar Rackham, superintendent; J. I. Lawrence, secretary; Spratts' patent, limited, will coop the show. Very truly yours, JOS. I. LAWRENCE.

A New York Show Report Error.

Mr. Editor:—In your report of New York poultry show, you gave Clifford W. Beaman 4th on Buff P. Rock cockerel, when it should have been credited to myself, as you will see in the marked catalogue. Also received no credit for 1st prize on White Cochins cockerel.

Yours truly,

Croton Falls, N. Y.

F. A. PURDY.

Merrimac Valley Poultry Association.

The Merrimac Valley Poultry and Pet Stock Association has elected the following officers for 1899: President, E. H. George, Groveland; secretary, G. I. Davis, Haverhill; treasurer, W. B. Davis, Haverhill; six vice presidents, and an executive committee of eight. The association has planned to hold its next show in the City Hall, Haverhill, Mass., the week of December 11–16. Many cash specials have already been donated. An exhibit of dressed poultry and eggs will be made a special feature of the show.

A Model Circular.

Lynnhurst Poultry Yards, located at Glassboro, N. J., office 403 Provident Building, Philadelphia, Pa., have just issued a circular which strikes us as one of the neatest and most concise circulars we have ever seen—and we have seen a great many. These yards make a specialty of Coehins and Cochins Bantams, all varieties, and solid White and Black Japanese Bantams. A list of their winnings at the leading shows in the past few years would fill a solid column of this paper.

Perhaps the most important announcement they have to make to the public this year is of their purchase in December last of the entire stock of Buff Cochins of Geo. G. McCormick, of London, Canada. To those who have long wished to buy eggs of McCormick stock, this is an announcement of great importance, for heretofore eggs from that stock have not been for sale. Messrs. Nevins & Allen have always stood out for the clear buff which they consider true buff color, and we note in Mrs. Comyns-Lewer's account of the New York show, particular mention made of the magnificent color of their Buffs.

NON-POISONOUS SURE PROTECTION

CHLORO-NAPHTHOLEUM

THE PREVENTIVE TREATMENT

Save Your Chickens.

Insure yourself against loss. Chloro-Naphtholeum prevents and cures death-dealing germ diseases. Kills lice. Cures Roup, Cholera, Diarrhoea, Dysentery, Consumption, Egg-bound, Eruptions, Gapes, Ulcerations, Sores and Wounds. Makes and keeps hens healthy, thrifty, and active. Used and endorsed by thousands of poultrymen.

Indianapolis, Ind.

"I have used Chloro-Naphtholeum for two years for disinfecting and for treatment of roup and colds in fowls with good results. As a disinfectant and remedy, I use nothing else. For use on inside of coops and on perches there is nothing equal to it."

Wm. Tobin, Pres. Ind. Poultry Association.

Chloro-Naphtholeum will be supplied from our nearest local agency or from local dealers. Agents wanted in unoccupied territory. Write for free book.

WEST DISINFECTING CO.,

E. TAUSSIG & CO., Proprietors,

29 East 59th St., N. Y.

"An ounce of prevention is worth a pound of cure."



RICE'S LICE PAINT

FOR POULTRY, LIVE STOCK AND HOUSE PLANTS.

Kills Lice, Mites, Fleas, Ticks, and Bed Bugs. Easy to use—Certain to kill. Will destroy all the lice in your poultry house, and on your fowl in one night by simply spraying or painting the roosts, nest boxes, droppings boards and floor. Cannot injure the fowls. Cheapest Lice Destroyer on the market.

HALF GAL. CANS, each 50 CENTS; GALLON CANS, each 75 CENTS.

Send for circulars and testimonials describing this wonderful Paint.

For sale by JOSEPH BRECK & SONS, Boston, Mass.; HARVEY SEED CO., Buffalo, N. Y.; C. C. RICE & CO., 178 Michigan St., Chicago, Ill.

DIXON'S SILICA GRAPHITE PAINT

FOR ROOFS AND ALL EXPOSED SURFACES, IT IS ABSOLUTELY WITHOUT AN EQUAL. The best paint for covering Neponset Roofing Paper. It will pay you to send for circulars and prices.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

25 RIBBONS, MADISON SQ. GARDEN. EGGS,

\$1 per sitting.

\$5 for 75 eggs.

Be sure and send for cat. before buying. I have won 1st in Madison Square Garden and other shows on all breeds. Eggs worth twice or more what I ask. A few special matings. Some cockerels of Leghorns for sale yet; also pullets. Rose Comb Black Minorcas, \$1.50 per sit. W. W. KULP, Box 40, Pottstown, Pa.

IF YOU SEEK UNDOUBTED INCUBATOR VALUE perfect regulation, perfect application of heat, perfect control of moisture, immunity from fire by lamp explosion or super-heating, buy the

ILLINOIS

Capacity 50 to 400 eggs. Hot air or hot water, as you prefer. Egg chamber holds just what we say it does. Nursery under egg tray for newly hatched chicks. Before you buy an incubator or brooder send for our free book, "Illinois." J. H. JONES, Box 102, STREATOR, ILL.

8000 BICYCLES

Overstock! Must Be Closed Out. STANDARD '98 MODELS, guaranteed, \$9.75 to \$16. Slop worn & second hand wheels, good as new, \$3 to \$10. Great factory clearing sale. We ship to anyone on approval & trial without a cent in advance. EARN A BICYCLE by helping us advertise our superb line of '99 models. We give one Rider Agent in each town FREE USE of sample wheel to introduce them. Write at once for our special offer. MEAD CYCLE COMPANY, 188 Avenue J, Chicago, Ill.

POLAND CHINA SWINE.

Also Chester Whites, Berkshire, Yorkshire, etc., the best registered stock for the lowest price. Address

POTTS BROTHERS,

Box 3, PARKESBURG, PA.

213 EGGS STRAIN W. WYANDOTTES.

COCKERELS FOR SALE.

Have you orders for eggs booked now? 15 eggs \$2; 45 eggs \$5; incubator eggs \$8 per 100. 300 chickens from the above stock due to hatch March 29th; will sell all or part.

F. P. PULSIFER,

Natick, Mass.

EGGS \$1 PER 13 EGGS

From "Bred for business" hens. Satisfaction guaranteed. No catalogue. Write for wants.

THOMAS W. NORRIS,

NEWPORT, VT.

Prince Albus Strain

White Wyandottes!

5 Choice Pens. First Prize Stock.

Eggs, \$2 per 13; \$5 per 39; \$8 per 100. Correspondence and visitors solicited.

C. R. POWERS & SON,

31 Train St., Dorchester, Mass.

Poultry Supplies

In greatest variety and any quantity. We handle everything that tends to make the poultry business pleasant and profitable. Bone Cutters, Incubators, Crushed Oyster Shells, Grit, Meat Meals, Beef Scraps, Bone, Drinking Fountains, Poultry Netting, Condition Powder, etc.

CUT GLOVER HAY ready for use—the great winter green food. \$1.75 per 100 lb. sack. Send for illustrated catalogue FREE to all inquirers. HARVEY SEED CO., 19 Ellicott Street, Buffalo, N. Y.

AT LAST A PERFECT INCUBATOR THERMOMETER.

The incline of the tube carries the mercury back into the bulb at lower temperatures. No erroneous readings. Bulb rests on two eggs, insuring the correct temperature. Every tube is seasoned. Costs no more than an inferior one. By mail—one, 75c., three, \$1.50.

WATERTOWN THERMOMETER CO.,

No. 40 Newell St., Watertown, N. Y.

WHITE WYANDOTTE

Eggs For Hatching

From choice, farm raised stock. Bred for layers. Eggs from best pens, \$2 per sitting; 3 sittings, \$5. Incubator eggs, \$6 per 100.

C. W. P. NICHOLS, Wellesley, Mass.

Do You Want Layers?

My thoroughbred Buff Plymouth Rocks and Silver L. Wyandottes, Hawkins strain. Regular beauties. Eggs, \$1 for 13, carefully packed. Circulars free.

J. G. STAUFFER, Palmyra, Pa.

FOR THREE \$5 BILLS

We will sell you such an incubator (100 eggs) as did not exist until very recently. It is the combined result of competition and American "gumption." Wonderful machines are these at

BRECK'S No. Market St., Boston.

YOUNG CHICKS

Just hatched from

B. Plymouth Rocks

and

S. C. W. Leghorns,

at 8c. apiece. Distance no objection. Send for circular.

JOS. D. WILSON, Stockton, N. J.

PURE BRED

BUSINESS POULTRY.

White Wyandottes

and

Buff Plymouth Rocks

EXCLUSIVELY.

The leaders among the most practical breeds. Winners at Prov., R. I., '95; Western, R. I., '96; Hagers-town, Md.; and Pawt., R. I., '97. Riverpoint, R. I., '98; Boston, Mass., '99. Prop. of the Stay there Leg Band, a band that will stay put without the use of any tool. Made from the best german silver, in sizes for any breed. Please state breed and number wanted. Eggs for hatching, \$2 per 13. Stock at all times.

R. I. POULTRY YARDS,

Box A, PAWTUCKET, R. I.

C. H. JENKS, Prop.

Chicks Have Convulsions.

Mr. Editor:—I want to discover if possible what attacks my chickens when between two and three weeks old. The first lot all died or had to be killed, and now the second lot are starting in just the same way, although I have fed them differently.

They squat down, draw back their heads, open their bills and quiver all over, while their heads shake, bills keep opening and shutting, and they act as if something kept impelling them backward. These "fits," as I call them, last but a short time, when they run out apparently as well as ever; but the attacks increase in frequency, and when about four weeks old they die. The trouble begins about the time the feathers start out at the top of the wings or shoulders.

Later on they fall on the brooder floor with sometimes one and sometimes both feet stretched out behind them, and lose control of themselves for a while. We have assembled for a funeral many times only to see the victim gather himself up and stagger off.

What strikes me as peculiar is that although I have read FARM-POULTRY many years, and studied the "doctor books," I can find nothing to help me. The two things I supposed I should have to fight, viz.:—leg weakness and diarrhoea, do not present themselves, and this unknown plague comes instead.

I have some beauties nearly a week old, and more coming off in a few days, and I don't want to lose them this way. I fed the first on bread crumbs and milk (dry), alternating with oatmeal; and the last on dry food wholly at first,—rolled oats mostly, and some cracked corn. After getting them on mash I give them a mixture of bran, middlings, clover meal, corn meal, and a little meat meal.

It cannot be too much heat, for we keep them cooler than most counsel. Is it indigestion, or lack of exercise, or wrong food—and what shall I do to prevent it? G. G.

Georgetown, Mass.

[Winter chickens are often the victims of convulsions. Too much food, too frequent feeding, lack of exercise, coddling or babying, lack of grit, any or all, and the resulting indigestion, gives rise to the convulsions. One "fit" opens the way for another, the convulsions become more frequent, and last longer, and the victim dies; or if the chick is exceptionally hardy, and is given a chance, the interval between convulsions becomes greater and greater, and the chick recovers. Some chickens from inbred stock inherit a tendency to convulsions. In most cases it is the result of indigestion, and is preventable.

A constant supply of pure water, grit, and charcoal, are necessities. The chicks must have fresh air and sunshine: even the wee new baby chick must be made to exercise. They know how to scratch, and will if you only give them a chance. Sprinkle chicken grit on the floor of the brooder run, and then litter of cut clover an inch or two deep, and in this scatter a few grains of millet seed, finely cracked wheat, or oatmeal. The chicks will exercise in this, and enjoy it. Do not feed too often—once in two hours and a half or three hours is often enough for the first week; four times a day until a month old, and then three times a day. Give them fresh green food. If it is too early to get a sod for them, sprout some hulled oats, millet, and onion seed, and let them have the tender green sprouts. Make them work for part of their food; never leave food before them after they have had what they want, except a trace in the litter to be scratched for. Avoid giving raw mash. Do not neglect to sprinkle a little grit in the food dish when feeding. If you are careful about these things there will be little danger of convulsions.—Ed.]

Diseased Egg Organs.

Mr. Editor:—I have been having much trouble with my hens this winter, and am completely at loss to know what to do, if there is anything that can be done. If you can help me I shall be forever grateful to you for it.

The first one sick was No. 6, a pullet. She laid ten eggs from October 5 to 23, '98, and then became sick. She had a whitish thin discharge that I thought at first was diarrhoea. Since the others began to go wrong with nearly the same symptoms I have thought it was something the matter with the egg

organs. No. 6 lived only a few days, and would not eat or drink.

The next was No. 32. She laid four eggs Nov. 16 to 22, got sick like the first one, and I killed her.

Next, No. 31, never laid, went on the nest one afternoon; at feeding time I took her off, but she went right back again. At night noticed that she had not laid, and allowed her to stay on nest. The next morning she was sick; the nest was all smeared up. Cleaned the nest up and disinfected it. Removed the hen to other quarters; she had a considerable discharge of the whitish matter, and I thought she couldn't get well, and so killed her.

No. 4 was pretty much the same. This month I killed six of the poorest layers for market. Three of them had a bunch of hard dry eggs in them that was as big as my fist. One of them, No. 53, had never laid any, but at times her comb would redden up as though she might lay. No. 2 had laid four eggs. No. 43 had laid seven eggs. These three were the ones that had the bunches of dry eggs in them.

No. 208, an old hen, went off pretty much the same way as the first pullets did, with a whitish diarrhoea, but as her vent protruded I thought she might have been hurt in some way.

Another hen, No. 201, I do not believe can lay. She goes on the nest several times a day, but does not lay.

Now I don't know if it is anything in the feeding, or what it is. Maybe it is just a rough way of getting rid of the unprofitable ones; but I dislike losing so many when I do not know why, or what to do for it. You can see by my Experiment Club reports how I feed.

I am using an automatic nest box, and some of the hens that I always thought were good layers have been proved to be poor ones. The nest box is merciless in showing up the poor layers. G. C.

St. Clairsville, Ohio.

[This is one of the cases where we wish we were able to see the afflicted birds and their surroundings. It is possible, but it does not seem probable, that these hens are afflicted with a wholesale attack of egg bound. If so, then the fowls have been overfed, have not had sufficient exercise, and will be found to have a considerable excess of internal fat.

The trouble is manifestly a diseased condition of the egg organs. This condition may have been caused by fowls being poisoned by diseased grain (grain affected with "smut" or "spurred grain"). In using cheap ready mixed grains or so-called "damaged" grain, there is always the chance that we may poison our fowls with diseased grain.

As a preventive of such troubles as this of G. C.'s fowls, we would advise always getting the best food obtainable. Give the fowls plenty of opportunity for exercise; see that they have fresh air to breathe and pure water to drink, plenty of green food, and do not overfeed.—Ed.]

A Satisfied Customer.

E. Lexington, Mass., March 12, '99.

Mr. W. B. Davis—Dear Sir:—The two sittings arrived yesterday in fine condition. I never saw eggs packed so nicely before, and think it would be a good idea if a few other breeders would follow your example.

Respectfully,

J. H. ELLINGWOOD.

We are well acquainted with Mr. Davis, and know that he attends to every detail to give every customer full value for his money, and if you are interested in Blue Barred P. Rocks, you had better send for his catalogue giving a description of his matings, etc., and his way of doing business.

Success With Incubators.

Are you having the success with your incubator that you think you ought to have? If not, then the best investment you can make is to spend 50 cents for a copy of "Artificial Incubating and Brooding," claimed by the publishers to be the greatest poultry book ever compiled. It is sold on approval. If on receipt of this book it is not considered by you to be worth the price, it can be immediately returned in good condition, and the purchase money will be promptly refunded. The most expert incubator and brooder men in

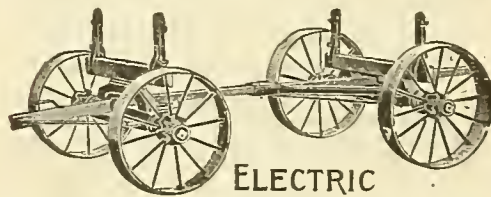
America have contributed elaborate original articles to this book, telling in detail how to operate incubators and brooders with the maximum of success. The book is fully illustrated with original copyrighted designs, and is practical in the extreme. It is positively the best bargain in poultry literature offered to date, and will save you dozens of eggs and many dollars if you will follow its instructions. (See advertisement, March 15th F.P.) "Artificial Incubating and Brooding" is published by the Reliable Poultry Journal Publishing Co., Quincy, Ill., to whom orders should be sent. Price of the book, sent postpaid, to any address in the United States or Canada, 50 cents.

Leader of Leaders.

We have watched with amazement the wonderful growth of popularity of the White Wyandottes throughout the country. Even the past year it has been remarkable. The reason is apparent. The practical American people "get onto" a good thing very quickly. The good qualities of the breed had only to be known when the demand became general, and its admirers increased. It has proved itself the "leader of the leaders" as a market fowl, either a broiler or roaster, it is unsurpassed; as layers the breed has few if any equals. The lover of birds bred to standard requirements finds plenty of room for the exercise of as keen judgment and as hard study required to produce the so-called parti-colored breeds. Probably no one in the whole fraternity has been as successful in producing birds of winning merit as has Arthur G. Duston, of Marlboro, Mass. The last great Boston show proved him as well as his chosen breed to be a "leader of leaders," for as he tells us, "he had not only the satisfaction of winning, but also the satisfaction of feeling that he bred and raised the long string he showed, after selling very many prize winners at long prices during the fall and winter.

Buy the Best.

If you want the best low down wagon you should buy the Electric Handy Wagon. It is the best because it is made of the best material; the best broad tired Electric Wheels; best seasoned white hickory axles; all other wood parts of the best seasoned white oak. The front and rear hounds are



ELECTRIC

made from the best angle steel, which is neater, stronger, and in every way better than wood. Well painted in red, and varnished. Extra length of reach, and extra long standards supplied without additional cost when requested. This wagon is guaranteed to carry 4000 lbs. anywhere. Write the Electric Wheel Co., Box 163, Quincy, Illinois, for their new catalogue, which fully describes this wagon, their famous Electric Wheels, and Electric Feed Cookers.

OUR
AFRICAN, EMBDEN,
and
TOULOUSE GEESE
are of the largest, most prolific and profitable strains. They are

BRED TO SUIT THE FARMER.

If you want lots of most marketable goslings put good Embden males with African females, or African males with large Embden and Toulouse females. Pure bred African geese are surest breeders of any of the large kinds, and with Embdens, indispensable in production of early goslings from now until June. No geese for sale. Eggs for hatching. Particulars free.

SAMUEL CUSHMAN
Pawtucket, R. I.

12 RIBBONS
On 11 entries. This is the record for our
WHITE ROCKS

At America's greatest show

At Boston.

Winning the special prize for best cockerel and 4 pullets, (1st); also 2d on hen, 2d on pen, 3d and 6th on cockerels; 4th, 5th, 5th, 6th on pullets. Our birds won 45 regular and special prizes at Haverhill and Amesbury this season, making a clean sweep of all the first prizes at Haverhill but one. A few fine breeding cockerels and choice pullets for sale.

From 5 grand breeding yards headed with our prize winners with prize pullets in each yard scoring from 93 1/2 to 95 1/2, \$2 per 13; \$5 per 40.

Merrimac River Poultry Yards,
GROVELAND, MASS.
E. H. & S. H. GEORGE.
White Rocks exclusively.

THOMPSON

ADDS BY PURCHASE THE

First Prize Breeding Yard
White Wyandottes

AT THE

BOSTON SHOW

TO HIS

"STAY WHITE STRAIN."

There were twenty-two yards from America's best breeders in competition, and this pen were Easy Winners.

With this grand addition of new blood, the **FOUR RIBBONS** my birds won in the "Single Bird" class at BOSTON; the Ten Regular and Special prizes, including Silver Trophy Cup, won at Haverhill's Big Show. My **CLEAN SWEEP** of every first prize but two (and was tied for one of these). **EVERY COLLECTION, Display, and Sweepstake** at Amesbury. Ten of the birds shown averaging to score 94 1-2 EACH.

I am offering Eggs from pens containing more high class prize winning blood than any breeder in America. No "Private Pens" on my farm. Every customer used the same, and gets his eggs from **BOSTON 1st PRIZE PEN** as well as from all the other prize matings.

EGGS FROM SEVEN PRIZE PENS.
One sitting \$3.00
Two sittings 5.00
Three sittings 7.00
Four sittings 8.50

A fair hatch guaranteed. My descriptive circular of matings and winnings mailed on application.

J. H. THOMPSON,

Box 319.

Haverhill, Mass.

MINORCAS.

S. C. Black Minorcas, standard bred for layers of large white eggs. Young stock have free range of fifty acre farm, and are strong and healthy, with exceptionally brilliant plumage. For the past 9 years have bred B. Minorcas exclusively. Eggs from Pit strain (imported birds), special matings, 15 eggs for \$2.50; two or more sittings, \$2 for 15. Royal and Cornell strains direct. \$1 for 15; eggs for incubator purposes from above strains \$5 per 100. Stock for sale.

Mrs. GEO. E. MONROE,
Member B. Minorca Club. Dryden, N. Y.



Raise your Chicks in our **BROODERS**, and your success is assured. Send 2ct. stamp for catalogue.

M. O. SHERER, Box 4, Louisville, Ohio.

FOGG'S

S. C. WH. LECHORNS
EGGS EGGS EGGS

15 for \$2; 30 for \$3; 45 for \$4.
My yards this season are closely culled, carefully mated, and ought to produce eggs that will produce winners. Send for list of premiums won since 1891.

WOODLAWN POULTRY YARDS,
CHAS. J. FOGG, Waltham, Mass.

SANDS' BARRED ROCKS
BROWN LEGHORNS
WIN 15 PRIZES

At two shows this season, Amesbury and Haverhill. Eggs from large, vigorous exhibition stock, carefully mated to produce best results; one sitting, \$1.50; two or more sittings, \$1 each. Satisfaction guaranteed.

M. H. SANDS, 21 Monroe St., Amesbury, Mass.

Eggs for Hatching
FROM CHOICE FARM RAISED
WHITE WYANDOTTES.

Price, \$1.50 per 15; incubator eggs \$5 per 100.
R. H. NOTT, Hanover, Mass.

DID IT EVER OCCUR TO YOU? **THAT O.K. FOOD**

Is the best all round poultry ration now on the market, being an egg producing food and a condition powder combined, and for sale at 2cts. per lb. Put up in bags of 50 and 100 lbs. each, and delivered on the cars free. Send for our illustrated catalogue of this and our other preparation for fowls.

BARTLETT & HOLMES,

Springfield, Mass.

In the Southwest.

Mr. Editor:—While reading my last F.-P., I saw an article written by Miss N. D., of Brooklyn, N. Y., which I would like to reply to if you will give me space in your valuable paper. I suspect she is a little prejudiced against our southern sunny clime. From what she says, I don't think she remained in the south long enough to find out its true worth, or else didn't want to. It is true we haven't as good a poultry market as you have, but we have other advantages to make up for it. I might say to Miss N. D. that we can come to the front on the cotton question, also fruit, as some of the southern states were in the front ranks at the World's fair.

We can grow almost everything here, have pleasant weather nearly the year around,—not as hot as Miss N. D. thinks—generally from 90° to 97° is our hottest time; even then we have pleasant nights. Our coldest this winter was 8° below zero, which is colder than usual for us.

Now about our prices; Miss N. D. is away off. Coal is \$6 per ton; wood from \$1 to \$2 per cord; and best flour \$4.20 per barrel; clothing almost at your own price. I do not think Miss N. D. knows whereof she speaks. If she will come down in this part of the country I will show her a poultry plant that made \$5,000 net profit last year, and bids fair to double it in the coming year.

She is wrong in regard to classing the working people that come here from the north with the negroes. That is a very broad assertion which in itself would be sufficient to discourage our friend, A. T. C.

Come on brother, and we will give you a far different reception than Miss N. D. would have you believe. We do not reckon on the Carolinas being the south; they form a very small part of it.

I do not know what lumber is worth in the north, but will give you southern prices. It ranges from \$2 to \$14 per thousand feet. I have a poultry house 12 by 100 ft., 9 ft. front, 6 ft. back, divided into four apartments, weather boarded with dressed lumber, but not celled, and has sixteen glass windows in it; the whole building complete, lumber, shingles, nails, windows, and everything, cost me \$23. I did the work myself. It is a very neat and comfortable house. I think Miss N. D. has written a misrepresentation of the south. Her letter reminds me of the fellow that went hunting, who never fired a gun in his life, came back in ten minutes, gameless, of course, and swore there was no game in the country. So Miss N. D. goes to a certain city in North Carolina, finds out the customs and habits there, dislikes them, and denounces the south.

Will say in conclusion that if A. T. C. or any other person desires to locate in the south, why come right along, and you will find a welcome, and perchance a country that is not so bad as some think. We are in a warm climate, and have warm hearts also; come and give us a trial.

I can say this, that FARM-POULTRY receives a warm welcome at my house. W. A. W. Lewisville, Ark.

[Mr. W. apparently overlooks the fact that Miss N. D. tells us she has lived in Georgia, Florida, North Carolina, South Carolina, and Louisiana.—ED.]

Cabot's "Quilt," and Warm Houses.

Many poultrymen were interested to see at the late Boston show a practical exhibit of Cabot's Sheathing "Quilt," showing the material and several methods of application. "Quilt" is a valuable and cheap insulator, and will prove quite a feature in poultry house construction, as it comes as a new article in a class by itself, doing the work in one economical operation of many expensive and impractical methods of insulation. It is built on the scientific dead air principle; air makes a good non-conductor, provided it is broken up in small spaces in which there is no circulation. The smaller and thinner the layers of dead air the better will be the insulation. This result is attained in the highest degree in the eel grass Sheathing Paper, called "Quilt." The flat ribbon-like blades of grass when quilted between two layers of manilla paper, are bound closely together, and form innumerable thin layers of dead air as do the feathers of a bird. The principles of science are the laws of nature.

The great trouble and complaint about cheap houses has been that thin dense walls get chilled and condense moisture, causing what is commonly called sweating. This occurrence not only causes the interior to become damp and unhealthful, but creates a much more serious damage. The sun, by drawing the moisture outwards, saturates the walls, and prepares an excellent conductor through which the heat in the house rapidly radiates at the next cold snap—for water is one of the best conductors known.

The very obvious method to prevent this trouble is to build so well that the walls will never become damp. It is a question of how much insulation can be afforded. The average poultryman must build, or thinks he must build, cheaply. He therefore saves a cent today, which will cost him dollars in the future, not in money directly, but in eggs and flesh, and the general health and condition of his flock.

Neglect is what causes misfortune in nine cases out of ten in the poultry business. It may be neglect in feeding, or neglect in keeping the house clean and pure, or neglect to build warm enough. A word on proper ventilation may not be out of place. In winter air out thoroughly in the warmest part of the day, from ten to four, when the weather is not too severe. Have shutters of blankets or "Quilt" to prevent radiation through the windows at night. In summer, air out at night, close up during the day, and do not let direct sunlight strike a window. Light passes through glass very easily and very quickly, and is changed from light to heat, which escapes but slowly in comparison. The house then becomes a reservoir, constantly storing up heat energy, and in a short time the temperature of the interior will be much higher than that of the outside air. This is the principle made use of by market gardeners in hot beds.

A certain amount of intelligence is needed to make any article, of whatever intrinsic value, a success. Who would think of putting a refrigerator on the kitchen range, and then complain that sixty pounds of ice a day would not keep the milk sweet; and yet, as one man said at the show, "there are men who come here and pay one hundred dollars for a bird that they take home and put in a five dollar coop." Then they complain that the stock is inbred, that the breeder is a fraud, and that there is no money in the poultry business.

Very little thought will convince an intelligent man that the best possible investment can be made in providing a warm house—but how about the expense? Very few can afford to double board and clapboard on the outside, and finish with lath and plaster. Here is where "Quilt" can be used to advantage. At a cost of a cent and a tenth a square foot, an insulator can be had, easy of application, practically indestructible, and equal to lath and plastering, double boarding, or ten layers of rosin sized building paper.

Some of its other good points may be seen in the circulars to be had of the manufacturer, on application, or in his advertisement, which appears in this issue.

Mr. G. H. Latham used the "Quilt" in his house described in the Jan. 15th, 1896, issue of this paper, and told Mr. Cabot's representative at the show to "send the boys around to him and he would show them the warmest house in winter and the coolest in summer that they had ever seen."

Mr. Latham said that strangers coming into his house on a hot summer day were wont to say, "This is as cool as a refrigerator."

"Quilt" works well under shingles, clapboards, tar and gravel, tin, or a good waterproof paper. It can also be tacked up on inside of the house, and if protected for about three feet up from the floor to prevent the hens from picking at the thread and scattering the grass, will present a very neat appearance.

"Quilt" is made and sold under patent rights by Samuel Cabot, 7 Batterymarch St., Boston, Mass.

IF FED CORN RHODE ISLAND REDS,

With liberty on the farm, do not get too fat to lay at any season of the year. CUSHMAN'S illustrated and descriptive circular free.

TESTIMONY

NEW BEDFORD, MASS., Jan. 2, 1899.

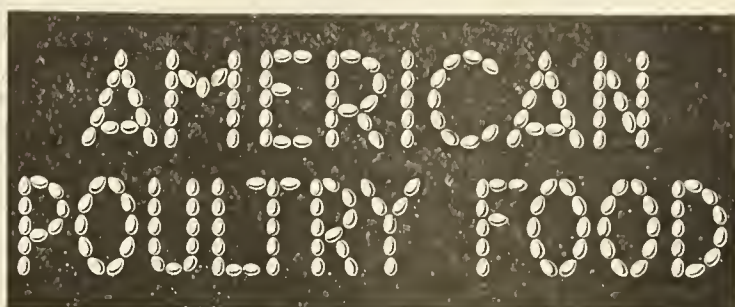
THE AMERICAN CEREAL CO.

Gentlemen:—March 1st, 1898, I hatched two broods of Golden Wyandottes and immediately began feeding them with *American Poultry Food*. At first I baked it and fed them the crumbs. Later I fed it scalded. They thrived amazingly and early in July commenced laying. About the middle of August I noticed three of them becoming broody and on the 25th placed eggs under two of them. On the 15th of September they hatched me some healthy chicks. All my spring pullets, including some hatched in June, are now laying splendidly. I don't need anything better than *American Poultry Food* in mine.

Yours very truly,

JOHN A. HART.

A Morning Mash



IT MAKES HENS PAY

Sold only in Sealed and Branded Sacks.

HOW TO MAKE CAKE FOR CHICKS.

Thoroughly mix three pints of American Poultry Food, one pint of clover meal, a third of a teaspoonful of salt, and five teaspoonfuls of baking powder: wet with water or milk to a moderately stiff batter and thoroughly bake in a slow oven; the inside of the cake will serve as a mash, and the outside can be used in place of hard grain.

The cake will be greatly improved by adding a little ground bone. If it is inconvenient to bake the cake, thoroughly scald the mixture, omitting the baking powder, and allow it to cool being careful never to feed the mash in a sloppy condition.

Feed little and often at start, gradually reducing the number of mash feeds until the chickens are placed permanently on three meals a day, after which mash should be fed but once a day.

Practical Poultry Feeding, a little book covering a wide range of subjects of vital interest to Poultrymen, will be sent you free, post paid, on request. Address, SCIENCE DEPARTMENT,

THE AMERICAN CEREAL CO., 1355 Monadnock Bldg. CHICAGO, ILL.

- FISHERS ISLAND FARM -

We have several hundred extra fine Cockerels bred from our best birds, which won many prizes for us last season.

Barred, White and Buff Plymouth Rocks; Cornish and White Indian Games; Pekin Ducks; Ring Neck Pheasants; Bronze Turkeys, and Belgian Hares.

Write for Free Catalogue.

We won more than two-thirds of all prizes competed for by us at New York, Boston, and Hagerstown last season.

Via New London, Conn.

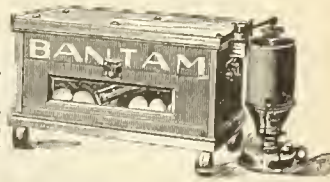
E. M. & W. FERGUSON, Proprietors, Fishers Island, N. Y.

50
EGG SIZE \$5.

ONE MILLION TESTIMONIALS ARE NOT SO CONVINCING
—AS THE—
30 DAYS TRIAL FREE

We offer on every incubator we make, no matter how cheap. No regulator has ever approached in efficiency our Patent Pneumatic Regulator with which over-heating is impossible. You may have chicks hatching every day in the week, with our Compartment Incubator. Among hundreds of others Mrs. M. T. Duval, Old Church, Va., never before saw an incubator, yet with our Bantam hatched 50 chicks from 50 eggs. You can do as well. Send 4 cents for No. 1 Catalogue.

BUCKEYE INCUBATOR CO., Springfield, O.



Eggs Sure to Hatch

—the kind that will produce strong, vigorous chicks, depend upon the vitality of the hen that lays them. She must not be fed on heating, debilitating food. Really the best thing for the breeding hen is our

PIONEER CLOVER MEAL.

It makes young chicks grow rapidly. Wonderful for broilers. Makes sweet, tender, high-flavored flesh. It is made from clean clover hay, cured by our own special process so as to preserve all the bright green color and the delicious aroma and essential oils. It is ground into the finest meal by our powerful and specially designed machinery. No additions, no adulterations, but clean, pure, sweet and wholesome poultry food. Then, too, it is quite cheap—only costs: 50 lbs. \$1; 100 lbs. \$2; 5 lbs. 25c. Use it this winter and get eggs when eggs are worth money. Sample and editorial indorsements FREE.

The Bennett & Millett Co., Box F.P., Gouverneur, N. Y.

F.B.W. Co.

Don't Like Ducks.

Mr. Editor:—I have gone out of the duck business, and am going to keep chickens exclusively. They are not only more clean, but I have heard they pay better. I would keep ducks, but after nearly four years experience, I have found that they are such utterly dirty and unscrupulous creatures that I cannot stand them any longer.

I am going to keep Partridge Cochins and Wyandottes, either Silver or White. I have but six Partridge Cochins, but I intend to keep about fifty or seventy-five. I do not know whether I am going to make as much on chickens as on ducks, but I am going to risk it. I have launched out, and have gotten rid of all my ducks. The profit I made off of seven ducks was:

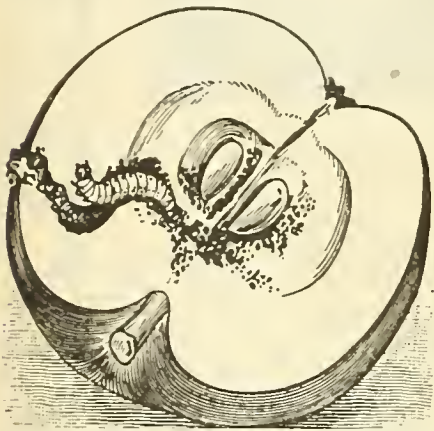
2 doz. eggs, at 25c. a dozen,	\$.50
8 ducklings, later on,	10.23
8 ducks, at 25c. each,	2.00
Total,	\$12.73
Expense of keeping,	2.40
Net profit,	\$10.33

Baltimore, Md. J. G. P.

[We can hardly understand how you could keep a family of ducks and raise sixteen ducklings at an expense of only \$2.40. They were certainly cheaply kept.—ED.]

Spraying Fruit Trees.

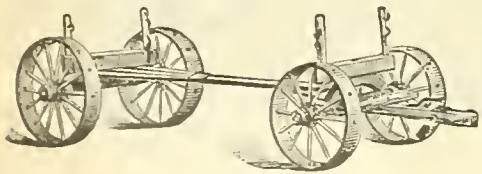
The question of spraying fruit trees to prevent the depredations of insect pests and fungus diseases is no longer an experiment, but a necessity.



Our readers will do well to write Wm. Stahl, Quincy, Ill., and get his catalogue describing twenty-one styles of Spraying Outfits and full treatise on spraying the different fruit and vegetable crops, which contains much valuable information, and may be had for the asking.

Farm Wagon for Only \$19.95.

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon, sold at the low price of \$19.95. The wagon is only 25 inches high, fitted with 24 and 30 inch wheels, with 4 inch tire.



This wagon is made of best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description, will be mailed upon application, by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices, made any size and width of tire, to fit any axle.

F. P. C. Chick Manna.

The almost marvelous success attending raising chicks fed the first ten days on F. P. C. Chick Manna justly places Chick Manna prominently before poultry raisers. The healthy vigorous growth, and strong development, give evidence that the manufacturer of F. P. C. Chick Manna must have considered in minute details the needs and wants of chicks when first hatched. The makeup and general appearance of Chick Manna differ from any other food on the market. Chicks fed on it become wonderfully attached to it, an indication that their taste is suited, and the result proves how well it is adapted to their need and want. The merits of Chick Manna are widely known among chick raisers, and all readers of F. P. C. would enjoy the pleasing results feeding it. The experience of M. K. Boyer, of "A Few Hens" experimental farm, verifies all the manufacturer claims for Chick Manna. For descriptive price list address the manufacturer, F. P. Cassel, Lansdale, Pa.

SILVER
WYANDOTTES

I have bred Silver Wyandottes 15 years, and have won more prizes on this variety at the New York and Boston shows than any other breeder. Birds of my breeding have won at the principal exhibitions in the country. At Washington, D. C. I won 1st pen, 1st cock, 1st hen, 2d pullet. They are large, are properly banded, and have small curving combs. Choice breeding birds and eggs from America's best. Large ad. opposite title page.

A. C. HAWKINS, Lancaster, Mass.

FOR SALE

AFRICAN
GEESE,

One and two years old, in flocks to suit customers.

— ALSO —

RHODE ISLAND REDS.

Eggs of the latter for hatching.

I. C. WILBOUR,

Little Compton, R. I.

CAPON

Gape-Worm Extractor, 25c. Remit by Money-Order or registered letter. G. P. PILLING & SONS, 1229 Callowhill Street, Philadelphia, Pa.

Complete set, with full instructions, post-paid, on receipt of \$2.50. 25p. Capon Book free for 2c. stamp. Poultry Marker, 25c. Roup Syringe, 10c.

TOOLS

BIGGLE BOOKS

A Farm Library of unequalled value—Practical, Up-to-date, Concise and Comprehensive—Hand-somely Printed and Beautifully Illustrated.

By JACOB BIGGLE

No. 1—BIGGLE HORSE BOOK

All about Horses—a Common-Sense Treatise, with over 74 illustrations; a standard work. Price, 50 Cents.

No. 2—BIGGLE BERRY BOOK

All about growing Small Fruits—read and learn how; contains 43 colored life-like reproductions of all leading varieties and 100 other illustrations. Price, 50 Cents.

No. 3—BIGGLE POULTRY BOOK

All about Poultry; the best Poultry Book in existence; tells everything; with 23 colored life-like reproductions of all the principal breeds; with 103 other illustrations. Price, 50 Cents.

No. 4—BIGGLE COW BOOK

All about Cows and the Dairy Business; having a great sale; contains 8 colored life-like reproductions of each breed, with 132 other illustrations. Price, 50 Cents.

No. 5—BIGGLE SWINE BOOK

Just out. All about Hogs—Breeding, Feeding, Butchery, Diseases, etc. Contains over 80 beautiful half-tones and other engravings. Price, 50 Cents.

The BIGGLE BOOKS are unique, original, useful—you never saw anything like them—so practical, so sensible. They are having an enormous sale—East, West, North and South. Every one who keeps a Horse, Cow, Hog or Chicken, or grows Small Fruits, ought to send right away for the BIGGLE BOOKS. The

FARM JOURNAL

Is your paper, made for you and not a misfit. It is 22 years old; it is the great boiled-down, hit-the-nail-on-the-head, quit-after-you-have-said-it, Farm and Household paper in the world—the biggest paper of its size in the United States of America—having over a million and a-half regular readers.

Any ONE of the BIGGLE BOOKS, and the FARM JOURNAL

5 YEARS (remainder of 1899, 1900, 1901, 1902 and 1903) will be sent by mail to any address for A DOLLAR BILL.

Sample of FARM JOURNAL and circular describing BIGGLE BOOKS free.

WILMER ATKINSON,
CHAS. F. JENKINS.

Address, FARM JOURNAL
PHILADELPHIA

Hoe Four Rows at Once.

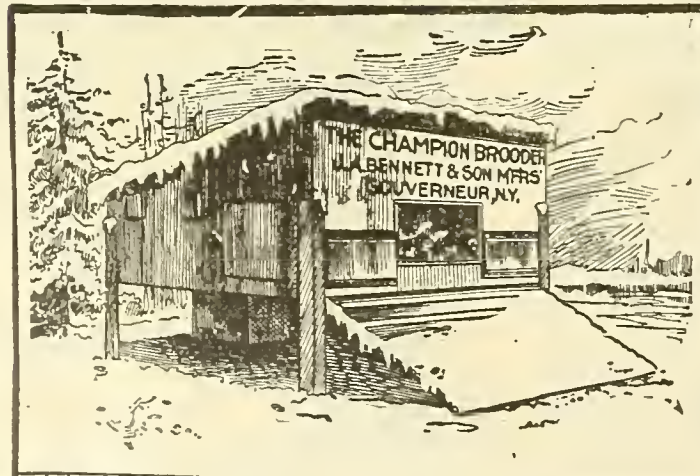
That's the way farmers make money with "PLANET JR." tools. The new Four-row Beet-hoe does for the farmer what four sewing-machines in one would do for his wife. The Two-row Pivot-wheel Cultivator is even more remarkable for its range of work. The Hand-drills and Wheel-hoes have revolutionized gardening.

The new "PLANET JR." catalogue this year shows pictures of these money-making tools at work all over the world—in French vineyards, in California orange groves, in Jersey truck patches, in Manitoba gardens. It's the most interesting and inspiring implement catalogue ever published—and it's FREE. Write us for a copy.

\$500 in Gold for the best gardens in 1899. Write for particulars.

S. L. ALLEN & CO., Box 1107 L, Philadelphia.

\$500 in Gold—\$500 in Gold—\$500 in Gold—\$500 in Gold—\$500 in Gold—\$500 in Gold—\$500 in Gold—\$500 in Gold



If You Knew

where to get the best
brooder, would you buy it?

You will certainly admit that it would be good business to do so. That brooder is best which is so constructed as to be beyond failure; which excels in application, maintenance and distribution of the heat; which is so perfectly ventilated that the chicks have always an ample supply of warm but fresh air; which is just as warm on the bottom as on the sides or top; which is not affected by sudden changes in temperature and which requires the minimum of fuel for heating. The

**\$5.00 CHAMPION
BROODER...**
excels in all these points and essentials and
The Champion Is Known by Its Work.

WHEN men speak of a machine as do those herewith it should leave little room for doubt as to its quality. Hundreds of others have given even stronger endorsements than these. Don't buy a brooder at least until you get a copy of our FREE, ILLUSTRATED CATALOGUE which describes it very fully.

J. A. BENNETT & SONS,
Box F. P. GOUVERNEUR, N. Y.

J. A. BENNETT & SONS. Norwich, Conn., Feb. 1, 1898.
We wish to write you about what we did with one of your \$5 Champion Brooders. Into the brooder we bought of you we put 21, 27, 50 chicks, and when they were 7 or 8 weeks old we sent them to the farm and raised 39 of them, one being picked to death by a hen on the farm that had a brood of chicks. We have just put a small hatch of chicks into the same brooder, (Jan. 31, '98,) and during the night, last night, we have had about 15 inches of snow, and around the brooder it drifted and nearly covered the brooder up, but we kept the heat at 80 degrees on the outside of the mother part of the brooder and the little chicks are as lively as possible. We swear by the Champion Brooder.
Very truly yours, C. W. HILL & SON.

J. A. BENNETT & SONS. Hapeville, Ga., April 16, '07.
Gentlemen—The Brooder is grand, I am delighted with it. I formerly used—made at—Ohio. It was the best that I ever saw until I saw and used the "Champion." Henceforth I shall use only the "Champion." It fills the bill. The photo. of J. A. Bennett & Sons impressed me favorably. I showed it to the agent here and he said, "Davis, that's a square crowd; those are honest, manly faces," and I agreed with him. Here's success to you all, and the "Champion" as well.
Very truly, J. H. DAVIS.